PART B

SOLAR - GEOPHYSICAL DATA

ISSUED

NOVEMBER 1962

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

CRPL-F 219
PART B

NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

Issued
30 Nov. 1962

SOLAR - GEOPHYSICAL DATA

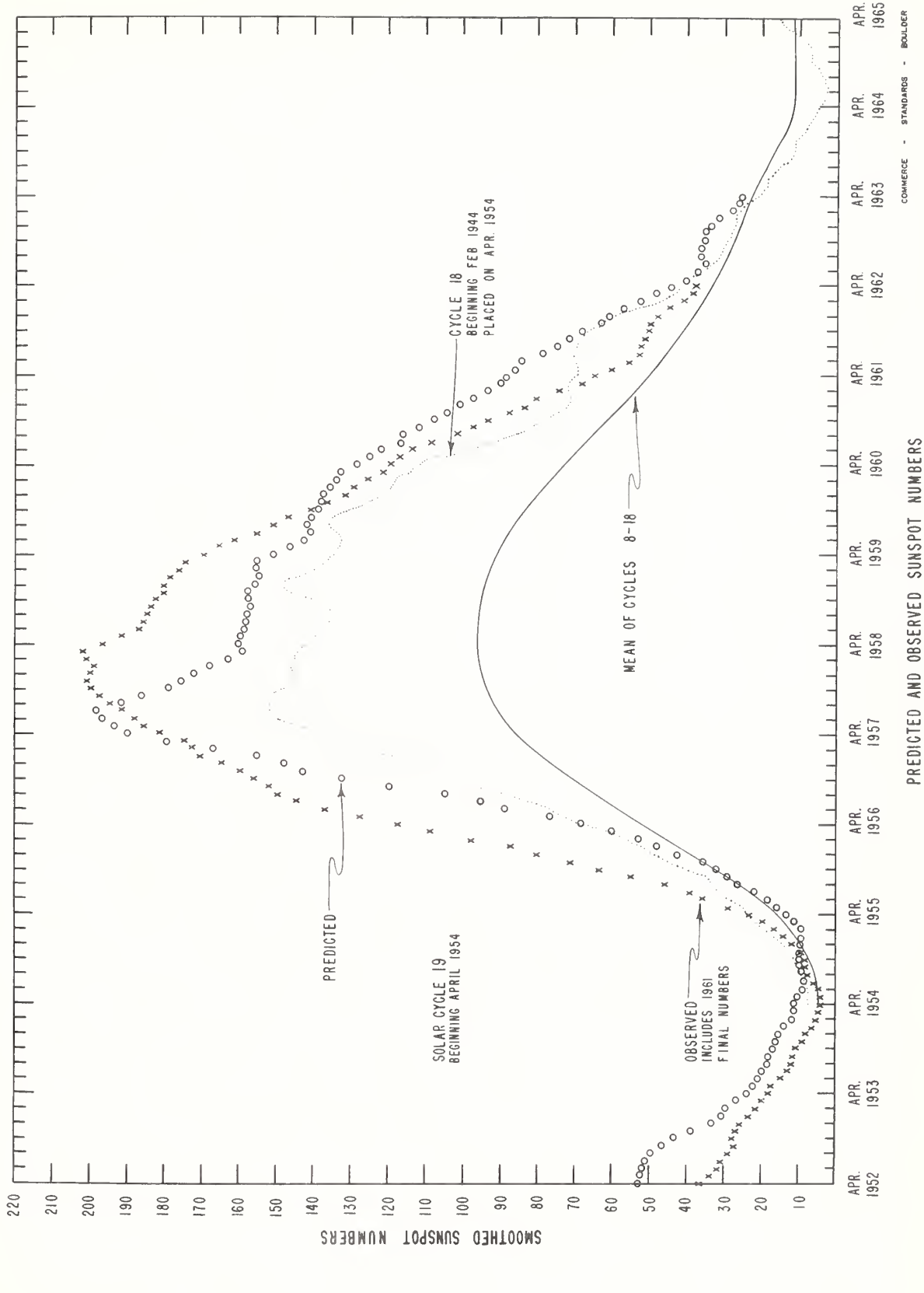
CONTENTS

The descriptive text has been republished this month, November 1962.

Sep. 1962	American Relative Sunspot Numbers $R_{A'}$
1	53
2	62
3	74
4	70
5	65
6	52
7	52
8	57
9	34
10	34
11	46
12	50
13	53
14	41
15	37
16	33
17	28
18	25
19	23
20	17
21	26
22	31
23	21
24	35
25	49
26	39
27	37
28	26
29	31
30	41
Mean:	41.4

Oct. 1962	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	51	86
2	35	86
3	22	83
4	18	82
5	13	86
6	25	84
7	37	85
8	40	87
9	42	86
10	51	93
11	63	93
12	63	93
13	74	95
14	67	95
15	62	94
16	51	91
17	43	91
18	33	89
19	29	87
20	28	88
21	35	87
22	41	85
23	43	84
24	41	89
25	43	87
26	48	87
27	42	86
28	31	82
29	15	80
30	20	82
31	23	81
Mean:	39.6	87.2

COMMERCE - STANDARDS - BOULDER



PREDICTED AND OBSERVED SUNSPOT NUMBERS

CALCIUM PLAGE AND SUNSPOT REGIONS

OCTOBER 1962

CMP Oct. 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data			Sunspot Data		
				CMP Values Area	Int.	History, Age	CMP Values Area	Count	History
02.5	S10	6564	New	400	2.5	b — d 1			
02.6	N10	6565	*	(500)	(1.5)	b — d 1			
04.7	N08	6566	6546	1600	3	ℓ — ℓ 2	200	10	ℓ — d
05.9	N10	6569	6546	300	2.5	ℓ — ℓ 3			
06.4	S12	6567	6548	(200)	(1)	ℓ — d 2			
10.5	S34	6576	*	200	1.5	b — d 1	10	1	b — d
11.6	N04	6570	New	1300	3	ℓ ⌜ ℓ 1	100	1	b — ℓ
12.0	S13	6575	6550	500	2.5	ℓ — ℓ 3			
12.4	S14	6585	New	(500)	(2)	b — ℓ 1			
12.8	N07	6571	**	1900	3	ℓ ⌜ ℓ 1	120	7	b \ d
12.8	N11	6572	New	300	2.5	b — d 1			
13.1	S21	6577	New	300	2	b — d 1			
14.6	N21	6578	6553	1400	2	ℓ ∧ ℓ 2			
14.6	S15	6579	New	3000	3.5	ℓ ∧ ℓ 1	270	26	ℓ \ d
16.6	N06	6582	*	200	2.5	b — d 1	10	1	b — d
18.1	S16	6580	6558	900	2.5	ℓ — ℓ 3			
18.4	N03	6581	6563A	2800	3.5	ℓ ∧ ℓ 2	160	4	b — d
20.1	N01	6592	New	(400)	(2.5)	b — d 1			
21.0	S12	6593	New	(300)	(3.5)	b ∧ ℓ 1	20	1	b / d
23.3	N08	6583	6560	1100	2.5	ℓ ¬ ℓ 2			
25.3	N09	6586	6562	1700	3	ℓ ∧ ℓ 3	40	1	ℓ \ d
26.5	N15	6591	6562	2200	3	ℓ \ ℓ 4	170	2	ℓ \ d
31.4	N08	6596	6566	500	2	ℓ — ℓ 3			
31.5	N18	6597	New	1100	3	ℓ — ℓ 1			

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* New and ephemeral

** New in position of 6552

OCTOBER 1962

Oct. 1962	Time Meas.	Lat.	Mer. Dist.	Type		Oct. 1962	Time Meas.	Lat.	Mer. Dist.	Type
5	1715	N07	W21	αp		16	1855	N01	W73	αp
		N05	W09	βp				S13	W30	βγ
								N05	W04	αp
7	2245	N05	W38	αp				N03	E22	β
		N01	E48	αp						
						20	2100	N10	E54	αp
8	1710	N05	W49	αp				N09	E73	βp
		N02	E39	βγ						
		N04	E50	β		21	1845	N10	E40	αp
								N09	E57	βp
9	2105	N05	W63	αp						
		N02	E24	βp		23	1805	N01	W40	αp
		N04	E32	β				S14	W34	αp
		S13	E66	β				N10	E13	αp
								N11	E33	βp
10	1700	N04	W76	αp						
		N01	E12	βp		24	1755	S12	W45	βp
		N04	E21	β				N10	E02	β
		S13	E55	β				N10	E22	βp
11	2335	N01	W06	βp		25	2240	S13	W65	β
		N05	E03	βf				N10	W00	αp
		S13	E37	βp						
						26	1645	S13	W75	β
12	1645	N01	W16	βp				N11	W24	αp
		N04	W06	βf				N10	W10	βp
		S13	E27	βp				N15	E66	αp
		N03	E78	β				N19	E66	βf
13	1700	N00	W30	βp*		27	2325	N10	W28	βp
		N04	W21	βp				N18	E52	αf
		S12	E13	βγ						
		N03	E64	β		28	2135	N10	W40	βp
								N18	E38	αf
						30	1810	N10	W65	αp
								N06	E23	αp

COMMERCE - STANDARDS - BOULDER

*Correct for the Northern Hemisphere.

PROVISIONAL CORONAL LINE EMISSION INDICES

OCTOBER 1962

CMP Oct 1962	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1
1	xx	xx	xx	xx	xx	xx	xx	xx	13	20	19	23	35	50	17	20
2	30	50	13	14	7	11	23	28	14	25	22	32	28	34	16	20
3	32	62	14a	17a	11	14	20a	30a	12	20	22	29	40	53	17	30
4	27	36	xx	xx	9	20	xx	xx	17	25	18	20	70	123	22	42
5	xx	xx	xx	xx	xx	xx	xx	xx	13	23	10	12	42	74	18	45
6	16	27	10	12	24	55	10	15	19	36	18a	23a	18	22	13a	18a
7	19	28	14	18	17	31	19	24	11	13	11	14	14	17	8	10
8	20	28	14	22	10	17	22	31	12	22	10	12	16	24	6	8
9	21	22	xx	xx	10	14	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
10	36	42	14	22	16	22	19	23	xx	xx	xx	xx	xx	xx	xx	xx
11	50	70	24	42	21	45	24	43	xx	xx	xx	xx	xx	xx	xx	xx
12	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
13	42	55	26	55	22	38	18	28	48	92	15	18	41	56	13	22
14	56	98	47	72	29	70	35	49	xx	xx	xx	xx	xx	xx	xx	xx
15	37	70	33	52	39	84	32	52	34	53	16	25	26	45	19	26
16	40	78	40	78	19	34	19	34	26	39	15	18	23	36	16	24
17	16	20	27	33	56	146	39	74	35	81	27	40	37	70	23	45
18	26	73	21	26	39	92	21	27	54	106	26	38	22	62	11	18
19	17	32	19	34	15	30	11	18	34	50	30	60	12	20	10	15
20	4	8	20a	24a	11	14	13a	15a	36	101	33	50	10	14	20	26
21	11	38	13	16	5	8	9	12	12	28	27	58	13	20	18	21
22	9	22	12	18	5	6	8	11	9	14	18	28	14	20	11	17
23	xx	xx	xx	xx	xx	xx	xx	xx	6	11	11	16	20	50	16	24
24	xx	xx	xx	xx	xx	xx	xx	xx	17	31	13	20	43	90	14	28
25	xx	xx	xx	xx	xx	xx	xx	xx	9	17	7	8	32	65	13	40
26	xx	xx	xx	xx	xx	xx	xx	xx	10	20	11	12	40	76	13	20
27	63	81	10	12	9	22	11	16	10	20	36	45	36	45	23	28
28	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
29	34	50	17	20	7	17	15	19	23	53	30	46	27	55	17	20
30	33	64	19	38	7	11	19	28	19	22	26	50	24	50	16	21
31	59	108	17	20	9	17	23	38	32	84	36	56	44	70	13	16

xx = no observations

a = index computed from low weight data

COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

OCTOBER 1962

OBSERVATORY	DATE OCT 1962	OBSERVED UNIVERSAL TIME START	OBSERVED UNIVERSAL TIME END	OBSERVED UNIVERSAL TIME MAX. PHASE	LOCATION APPROX. LAT.	LOCATION APPROX. MER. DIST.	LOCATION McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEASUREMENTS MEAS. AREA Sq. Deg.	MEASUREMENTS CORR. AREA Sq. Deg.	MEASUREMENTS MAX. WIDTH Hα	MEASUREMENTS MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
	01	0055	0615	NO FLARE	PATROL											
WENDEL	01	0702	0728		N09	E16	6565	26	1				3.00			
ATHENES	01	0705 E	0730		S10	E19			1-	3		.70	.70			
MCMATH	01	1435	1448 D	1439	N10	E43	6566		1-	3	1439	.70	.90			
SAC PEAK	01	1436	1452	1439	N09	E44			1-	3		.82	.95		17	
LOCKHEED	01	2034	2045	2038	N22	W01			1-	2	2038	.10	.10		10	
LOCKHEED	01	2301	2323	2308	N08	E36			1-	2	2308	.30	.30		20	
LOCKHEED	01	2359	0010	0003	N11	E38			1-	1	0003	.10	.10		10	
	02	0155	0620	NO FLARE	PATROL											
	02	1635	1640	NO FLARE	PATROL											
	02	1735	1740	NO FLARE	PATROL											
	03	0210	0220	NO FLARE	PATROL											
	03	0305	0625	NO FLARE	PATROL											
	04	0045	0335	NO FLARE	PATROL											
	04	0340	0345	NO FLARE	PATROL											
	04	0415	0635	NO FLARE	PATROL											
ATHENES	04	0913 E	0933 D		N09	E12			1-	3		.70	.70			
ARCETRI	04	0920 E	0925 D		N09	E11			1-	2	0920					
ARCETRI	04	0940 E	0950 D		N11	E10			1-	2	0940					
	04	1655	1710	NO FLARE	PATROL											
	04	1840	1900	NO FLARE	PATROL											
	04	1915	1925	NO FLARE	PATROL											
	04	1950	2000	NO FLARE	PATROL											
	04	2055	2400	NO FLARE	PATROL											
	05	0000	0610	NO FLARE	PATROL											
	05	1640	1710	NO FLARE	PATROL											
	05	1820	1830	NO FLARE	PATROL											
	05	2245	2350	NO FLARE	PATROL											
	06	0205	0600	NO FLARE	PATROL											
HONOLULU	06	0800 E	0045 D	0018	N12	W03			1-	3	0018	1.34	1.34			
WENDEL	06	1010 E	1035 D		N08	W22	6566	25 D	1				6.00			
LOCARNO	06	1015 E	1040		N08	W18	6566	25 D	1	2						
	06	1620	1625	NO FLARE	PATROL											
MCMATH	06	1700	1735	1706	N05	W23	6566		1-	2	1706	.20	.20			
	07	0035	0150	NO FLARE	PATROL											
	07	0155	0200	NO FLARE	PATROL											
	07	0340	0350	NO FLARE	PATROL											
	07	0400	0420	NO FLARE	PATROL											
	07	0435	0535	NO FLARE	PATROL											
	07	0555	0600	NO FLARE	PATROL											
MCMATH	07	1334	1344	1336	N03	E65	6571		1-	2	1336	.20	.50			
LOCKHEED	07	2140	2152	2145	N02	E49			1-	2	2145	.10	.10		10	
	08	0200	0645	NO FLARE	PATROL											
	08	0725	0750	NO FLARE	PATROL											

SOLAR FLARES

OCTOBER 1962

OBSERVATORY	DATE OCT 1962	OBSERVED UNIVERSAL TIME START	END	MAX PHASE	LOCATION APPROX LAT.	MER DIST	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX INT.	PROVISIONAL IONOSPHERIC EFFECT
	08	0805	0815	NO FLARE	PATROL											
WENDEL	08	1456 E	1507 D		N03	E41			1-							
LOCKHEED	08	2039	2051	2043	S14	E90			1-	2	2043	.20	1.00		10	
	09	0120	0125	NO FLARE	PATROL											
	09	0140	0655	NO FLARE	PATROL											
	09	0705	0715	NO FLARE	PATROL											
	09	1005	1015	NO FLARE	PATROL											
	09	1025	1045	NO FLARE	PATROL											
	09	1230	1315	NO FLARE	PATROL											
	09	1400	1410	NO FLARE	PATROL											
SAC PEAK	09	2114	2140	2122	N03	E35			1-	3		.27	.29		15	
SAC PEAK	09	2128	2140	2130	S14	E70			1-	3		.70	1.30		16	
LOCKHEED	09	2128	2150	2132	S13	E68			1-	2	2132	.80	1.40		10	
LOCKHEED	10	0022	0030	0024	N11	E29			1-	2	0025	1.00	1.00		10	
	10	0130	0645	NO FLARE	PATROL											
SALTSJOBADE	10	1030 E	1055 D		N03	E25			1-		1040	1.50	1.70			
	10	1145	1215	NO FLARE	PATROL											
WENDEL	10	1148 E	1156 D		N03	E21			1-							
LOCKHEED	10	1807	1813	1809	N04	E22			1-	2	1809	.20	.20		10	
	11	0205	0315	NO FLARE	PATROL											
	11	0320	0600	NO FLARE	PATROL											
	11	0800	0810	NO FLARE	PATROL											
	11	1015	1130	NO FLARE	PATROL											
	11	1150	1200	NO FLARE	PATROL											
	11	1210	1215	NO FLARE	PATROL											
LOCKHEED	11	1742	1754	1745	N08	E07			1-	2	1745	.30	.30		10	
MCMATH	11	1758	1825		N01	E90	6581		[illegible]	2						
LOCKHEED	11	1904	1922	1908	N08	E08			1-	2	1908	.20	.20		10	
LOCKHEED	11	2250	2335	2315	N00	E90			1-	2	2315	.30	1.50		10	
LOCKHEED	12	0013	0025	0017	N00	E90			1-	2	0017	.20	1.00		10	
	12	0205	0830	NO FLARE	PATROL											
WENDEL	12	0815 E	0820 D		N04	E80			1-							
	12	0835	0850	NO FLARE	PATROL											
	12	0900	0915	NO FLARE	PATROL											
CAPRI S	12	0916 E	1022 D		N05	E80	6581	66 D	2	1	1018	1.20	7.20			
	12	0925	1010	NO FLARE	PATROL											
	12	1015	1020	NO FLARE	PATROL											
	12	1025	1055	NO FLARE	PATROL											
WENDEL	12	1028	1042		N04	E63	6581	14	1				4.00			
SALTSJOBADE	12	1030 E	1045 D		N00	E78	6581	15 D	1			.50	2.50			
	12	1100	1240	NO FLARE	PATROL											
WENDEL	12	1209 E	1224 D		S11	E28			1-							
	12	1250	1310	NO FLARE	PATROL											
	12	1315	1420	NO FLARE	PATROL											
SAC PEAK	12	1640	1724	1701	S10	E29			1-	4		1.11	1.17		17	
MCMATH	12	1648	1730		S11	E29	6579		1-	2	1652	.70	.90			
HUANCAYO	12	1659 E	1723 D	1659	S13	E28			1-	2	1701	1.50	1.80	2.00		

SOLAR FLARES

OCTOBER 1962

OBSERVATORY	DATE OCT 1962	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. °°	PROVISIONAL IONOSPHERIC EFFECT
SAC PEAK	12	1957	2007	2002	N00	E80			1-	4		.58	.58		16	
LOCKHEED	12	1958	2010	2003	N01	E75			1-	2	2003	.40	.80		10	
HONOLULU	12	2000 E	2006 D	2002	S02	E80	6581	6 D	1	3	2002	1.34	3.48			
LOCKHEED	12	2120	2130	2125	S11	E23			1-	2	2125	.10	.10		10	
LOCKHEED	12	2144	2200	2150	S01	E76			1-	2	2150	.20	.50		10	
LOCKHEED	12	2300	2317	2303	S11	E21			1-	2	2303	1.10	1.10		20	
HONOLULU	12	2302 E	2310 D	2302	S18	E19	6579	8 D	1	3	2302	3.30	4.28			
LOCKHEED	13	0055	0057 D	0057 U	S11	E21			1-	2	0057	.70	.70		10	
	13	0150	0605	NO FLARE	PATROL											
ATHENES	13	0645 E	0715		S11	E17			1-	3		1.60	1.80			
BUCHAREST	13	0704 E	0719 D	0710	S12	E18			1-	2			.60			
BUCHAREST	13	0730 E	0754 D	0740	S13	E17			1-				1.20			
WENDEL	13	0739 E	0815 D		S12	E19	6579	36 D	1+				6.00			
ATHENES	13	0759 E	0809		S11	E17			1-	3		.70	.80			
BUCHAREST	13	0759 E	0830 D	0805	S12	E17			1-				1.20			
BUCHAREST	13	0845 E	0915 D	0858	S13	E16			1-				3.00			
ATHENES	13	0856 E	0903 D		S11	E17			1-	3		1.10	1.20			
WENDEL	13	0858 E	1007 D		S11	E18	6579	69 D	1+				5.00			
	13	0915	1220	NO FLARE	PATROL											
WENDEL	13	1007 E	1014 D		S01	W24			1-							
WENDEL	13	1102 E	1146 D		S11	E17	6579	44 D	1				4.00			
WENDEL	13	1150 E	1222 D		S11	E16	6579	32 D	1+				5.00			
	13	1225	1245	NO FLARE	PATROL											
WENDEL	13	1236 E	1241 D		S11	E17			1-							
MCMATH	13	1607	1635	1615	S10	E12	6579		1-	3	1615	1.00	1.00			
MCMATH	13	1654	1657 D		S11	E12	6579		1-	2	1655	.20	.20			
MCMATH	13	1749	1803	1754	S14	E14	6579		1-	2	1754	.80	.90			
SAC PEAK	13	1750	1803	1757	S15	E14			1-	3		1.11	1.13		16	
SAC PEAK	13	1805	1825	1808	S15	E14			1-	3		1.40	1.42		17	
MCMATH	13	1805	1830	1806	S14	E14	6579		1-	2	1806	1.10	1.20			
MCMATH	13	1837	1910	1843	S16	E14	6579	33	1	2	1843	1.80	2.00			
SAC PEAK	13	1838	1910	1847	S16	E14	6579	32	1	3		2.22	2.24		18	
MCMATH	13	1946	1955	1948	S11	E10	6579		1-	2	1948	.20	.20			
MCMATH	13	2033	2038	2035	S14	E08	6579		1-	2	2035	.30	.30			
SAC PEAK	13	2033	2040	2035	S14	E08			1-	3		.56	.56		16	
LOCKHEED	13	2105	2121	2115	S11	E09			1-	2	2115	.20	.20		10	
LOCKHEED	13	2245	2315	2300	S11	E09			1-	2	2300	.40	.40		20	
LOCKHEED	13	2349	0004	2353	S14	E12			1-	2	2353	.30	.30		10	
LOCKHEED	14	0006	0020	0011	N01	E60			1-	2	0011	.40	.60		10	
LOCKHEED	14	0020	0030	0023	S14	E12			1-	2	0023	.20	.20		10	
LOCKHEED	14	0033	0037	0035	S11	E08			1-	2	0035	.20	.20		10	
	14	0045	0330	NO FLARE	PATROL											
	14	0345	0355	NO FLARE	PATROL											
	14	0400	0410	NO FLARE	PATROL											
	14	0425	0430	NO FLARE	PATROL											
	14	0440	0610	NO FLARE	PATROL											
ATHENES	14	0613	0628		S11	E02			1-	3		.80	.80			
ATHENES	14	0624 E	0633		N02	E58			1-	3		1.00	1.80			
ATHENES	14	0643	0650		N01	E59			1-	3		.10	.20			

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	14	0755	0800	NO FLARE	PATROL											
BUCHAREST	14	0809 E	0817 D		N01	E57			1-	3			1.00			
	14	1010	1025	NO FLARE	PATROL											
	14	1050	1200	NO FLARE	PATROL											
	14	1205	1405	NO FLARE	PATROL											
MCMATH	14	1405	1418	1409	N03	E54	6581		1-	2	1409	1.10	1.80			
MCMATH	14	1433	1445	1438	N05	E55	6581		1-	2	1438	.20	.30			
MCMATH	14	1502	1510	1504	S18	E03	6579		1-	2	1504	.20	.20			
MCMATH	14	1534	1546	1537	N04	E49	6581		1-	2	1537	.20	.30			
SAC PEAK	14	1605	1642 U	1617 U	S13	E00			1-	3		1.38	1.36		17	
MCMATH	14	1608	1650	1609	S16	E02	6579		1-	2	1609	.40	.40			
MCMATH	14	1614	1640	1616	S11	W02	6579		1-	2	1616	.30	.30			
MCMATH	14	1809	1825	1811	S12	E01	6579		1-	2	1811	.60	.60			
SAC PEAK	14	1809	1835	1816	S11	E00			1-	3		.68	.66		17	
SAC PEAK	14	1851	1920 U	1856	S18	E00			1-	3		.58	.58		17	
MCMATH	14	1852	1923	1854	S18	E01	6579		1-	2	1854	.90	1.00			
	14	2225	2400	NO FLARE	PATROL											
	15	0000	0350	NO FLARE	PATROL											
	15	0355	0405	NO FLARE	PATROL											
	15	0410	0600	NO FLARE	PATROL											
WENDEL	15	0658 E	0751 D		S10	W08	6579	53 D	1				4.00			
ATHENES	15	0700 E	0750 D		S12	W08			1-	2		1.60	1.80			
WENDEL	15	0707 E	0751 D		S11	W06	6579	44 D	1				3.00			
WENDEL	15	0707 E	0714 D		N07	W36			1-							
	15	0750	0805	NO FLARE	PATROL											
ATHENES	15	0857 E	0903 D		N05	W47			1-	3		.80	1.20			
WENDEL	15	1033 E	1043 D		S11	W11			1-							
	15	1145	1340	NO FLARE	PATROL											
WENDEL	15	1311 E	1347 D		S14	E00	6579	36 D	1				3.00			
	15	1355	1415	NO FLARE	PATROL											
WENDEL	15	1444 E	1451 D		N02	E39			1-							
SAC PEAK	15	1438	1552	1528	S12	W12	6579	74	1	3		3.13	3.13		19	
WENDEL	15	1439	1458		S11	W04	6579	19	1+				5.00			
ZURICH	15	1514 E	1542	1522	S12	W12	6579	28 D	1	2	1522		4.00			
WENDEL	15	1516	1556 D	1522	S11	W04	6579	40 D	2				9.00			
MCMATH	15	1518	1557 D	1525	S12	W11	6579		1	2	1525	1.90	2.10			
HUANCAYO	15	1520	1536	1524	S13	W10			1-	2	1524	1.00	1.10	2.60		
MCMATH	15	1821	1830 D		N00	E36	6581		1-	2	1825	.50	.60			
LOCKHEED	15	2138	2142	2139	N03	E37			1-	2	2139	.10	.10		10	
LOCKHEED	15	2249	2305	2255	N03	E37			1-	2	2255	.30	.30		10	
	16	0205	0600	NO FLARE	PATROL											
WENDEL	16	0655	0708		S11	W21	6579	13	1				3.00			
	16	0805	0810	NO FLARE	PATROL											
WENDEL	16	0826 E	0834 E		S13	W26			1-							
	16	0905	0940	NO FLARE	PATROL											
WENDEL	16	1000	1038		N05	E30	6581	38	1+				6.00			
WENDEL	16	1311 E	1332 D		S13	W27			1-							
	16	1605	1630	NO FLARE	PATROL											
LOCKHEED	16	1715	1736	1719	S17	W26			1-	2	1719	.50	.50		10	

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SAC PEAK	16	1716	1733	1720	S19	W25			1-	1		.70	.74		16	
LOCKHEED	16	1833	1858	1840	S21	E13			1-	2	1840	.40	.40		10	
SAC PEAK	16	1835	1848 D	1839	S20	E12			1-	1		.56	.56		16	
HONOLULU	16	2032 E	2042 D	2034	S12	W35			1-	3	2034	1.20	1.30			
LOCKHEED	16	2038 E	2052	2038 U	S13	W37			1-	1	2038	.50	.60		10	
MCMATH	16	2039 E	2050		S12	W33	6579		1-	1	2039	.50	.70			
LOCKHEED	16	2241	2255	2246	S10	W30			1-	2	2246	.20	.20		10	
	17	0010	0555	NO FLARE	PATROL											
	17	0655	0825	NO FLARE	PATROL											
WENDEL	17	0659 E	0704 D		N04	E19			1-							
WENDEL	17	0704 E	0730 D		S15	E06	6580	26 D	1				3.00			
WENDEL	17	0716 E	0723 D		S11	W37			1-							
WENDEL	17	0717 E	0805 D	0722	N06	E15	6581	48 D	1+				7.00			
ARCETRI	17	0915 E	0930 D		S11	W41	6579	15 D	1	2	0920					
WENDEL	17	0915 E	0931 D		S12	W34			1-							
	17	1005	1150	NO FLARE	PATROL											
WENDEL	17	1046 E	1112 D		S13	W41			1-							
	17	1215	1245	NO FLARE	PATROL											
WENDEL	17	1230 E	1253 D		S15	W32			1-							
WENDEL	17	1235 E	1247 D		S30	W47			1-							
WENDEL	17	1257 E	1328 D		S12	W40			1-							
MCMATH	17	1257	1330	1301	S10	W40	6579		1-	1	1301	.80	1.10			
WENDEL	17	1313 E	1326 D		S11	W35			1-							
MCMATH	17	1636	1730 D	1643	N04	E12	6581		1-	1	1643	1.00	1.00			
LOCKHEED	17	1705	1724	1708	N03	E13			1-	2	1708	.30	.30		10	
LOCKHEED	17	1803	1815	1806	S11	W41			1-	2	1806	.40	.50		10	
MCMATH	17	1804 E	1820		S10	W42	6579		1-	1	1804	.60	.80			
	18	0055	0600	NO FLARE	PATROL											
	18	0630	0835	NO FLARE	PATROL											
	18	1005	1025	NO FLARE	PATROL											
WENDEL	18	1037 E	1153		N04	W01	6581	76 D	1				3.00			
WENDEL	18	1037 E	1223		N04	W02	6581	106 D	1				3.00			
	18	1040	1100	NO FLARE	PATROL											
WENDEL	18	1100 E	1106 D		N03	E01			1-							
	18	1105	1245	NO FLARE	PATROL											
MCMATH	18	1706	1800		N04	W04	6581		1-	1	1711	1.60	1.60			
MCMATH	18	1724	1800		S19	W14	6580		1-	2	1725	.20	.20			
MCMATH	18	2012	2050	2017	N02	W04	6581		1-	2	2017	1.00	1.00			
	18	2100	2105	NO FLARE	PATROL											
SAC PEAK	18	2111 E	2155	2135 U	N03	W04			1-	2		1.23	1.21		18	
HUANCAYO	18	2134	2142	2135	N03	W03			1-	2	2135	.90	.90	2.10		
	18	2230	2400	NO FLARE	PATROL											
	19	0000	0655	NO FLARE	PATROL											
ATHENES	19	0820 E	0822		S16	W65			1-	3		.20	.60			
WENDEL	19	0859 E	0920 D		N06	W15			1-							
WENDEL	19	0845 E	0932 D		S11	W63			1-							
ATHENES	19	0902 E	0909 D		S15	W65			1-	3		.30	.90			
SALTSJOBADE	19	0910 E	0917 D		S13	W65	6579	7 D	1	2	0917	1.00	2.50			

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WENDEL	19	0925 E	1002 D		N04	W10	6581	37 D	1				3.00			
WENDEL	19	1000	1009		S11	W64	6579	9	1				3.00			
CAPRI S	19	1002	1019		N01	W15			1-	3	1010	1.60	1.60			
WENDEL	19	1002 E	1025 D		N05	W15	6581	23 D	1				4.00			
LOCARNO	19	1003	1017		N05	W14	6581	14	1	2						
SALTSJOBADE	19	1010 E	1020 D		N04	W15	6581	10 D	1	2	1014	2.00	2.10			
WENDEL	19	1135 E	1143 D		S11	W65			1-							
	19	1235	1245	NO FLARE	PATROL											
MCMATH	19	1249	1259	1252	N02	W13	6581		1-	2	1252	.60	.60			
	19	1455	1500	NO FLARE	PATROL											
MCMATH	19	1622	1630	1625	N10	E75	6586		1-	2	1625	.40	1.30			
MCMATH	19	2010	2025	2013	N03	W18	6581		1-	1	2013	.20	.20			
MCMATH	19	2021	2108 D	2031	N10	E75	6586	47 D	1	1	2039	.60	2.50			
MCMATH	19	2035	2108 D	2039	N10	E75			1							
HONOLULU	19	2032 E	2114 D	2040	N06	E85	6586	42 D	1	1	2050	1.03	2.37			
	19	2200	2225	NO FLARE	PATROL											
	19	2235	2250	NO FLARE	PATROL											
	20	0000	0700	NO FLARE	PATROL											
CAPRI S	20	0658 E	0720		N09	E87			1-	3	0712	.40	1.70			
ATHENES	20	0807 E	0818		N09	E79	6586	11 D	1	2		.60	2.60			
ARCETRI	20	0808 E			N11	E77	6586		1	3	0808					
ZURICH	20	0815 E	0820		N10	E80	6586	05 D	1	2	0815		2.00			
LOCARNO	20	0935	1030 D		S11	W83	6579	55 D	1	2						
ARCETRI	20	0942 E	1001 D		N11	E77	6586	19 D	1	3	0952					
ZURICH	20	0943 E	1002		N10	E79	6586	19 D	1	2	0943		2.00			
LOCARNO	20	1305	1340		N10	W76	6578	35	1	2						
CAPRI S	20	1310 E	1322		N09	E85	6586	12 D	1	3	1312	1.00	4.00			
LOCARNO	20	1350 E	1420 D		N10	W72	6578	30 D	1+	2						
CAPRI S	20	1357 E	1414 D		N09	E85	6586	17 D	1	3	1405	1.10	4.40			
SAC PEAK	20	1405 E	1416	1406 U	N10	E79			1-	1		.70	.70		17	
LOCKHEED	20	1553 E	1606	1555 U	N10	E72			1-	2	1555	.30	.60		10	
SAC PEAK	20	1552	1630	1556	N02	W29			1-	1		.97	.97		17	
LOCKHEED	20	1553 E	1615	1553 E	N02	W30			1-	2	1553	.70	.70		10	
LOCKHEED	20	1627	1642	1631	N10	E72			1-	2	1631	.50	1.00		20	
SAC PEAK	20	1628	1635	1631	N09	E76			1-	1		.41	.41		16	
LOCKHEED	20	1753	1914	1758	N10	E72			1-	2	1835	.50	1.00		20	
LOCKHEED	20	1753	1914	1835	N10	E72			1-							
LOCKHEED	20	1753	1914	1857	N10	E72			1-							
HONOLULU	20	1828 E	1840 D	1840	N08	E76	6586	12 D	1	1	1840	1.14	2.49			
SAC PEAK	20	1852	1906	1855	N10	E74			1-	1		.82	.82		17	
SAC PEAK	20	1951	2011	1959	N10	E74			1-	1		.97	.97		17	
LOCKHEED	20	1956	2020	2000	N10	E72			1-	2	2000	.60	1.20		20	
LOCKHEED	20	2030	2055	2040	N10	E74			1-	2	2040	.30	.60		10	
LOCKHEED	20	2215	2315	2225	N10	E72			1-	2	2225	.40	.80		10	
LOCKHEED	20	2355	0007	2357	N10	E72			1-	2	2357	.30	.60		20	
LOCKHEED	21	0027	0037 D	0032	N10	E70			1-	2	0032	.30	.60		20	
	21	0040	0505	NO FLARE	PATROL											
WENDEL	21	0743 E	0756 D		N11	E67			1-							
WENDEL	21	1524	1608 D		S05	W44	6581	44 D	1				3.00			

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→ WENDEL	21	1524	1608 D		N01	W43	6581	44 D	1+				5.00			
MCMATH	21	1525 E	1547 D	1535	N01	W42	6581		1-	1	1535	1.20	1.80			
SAC PEAK	21	1527	1631 D	1538	N01	W43	6581	64 D	1	2		2.90	3.35		18	
CAPRI S	21	1531 E	1532 D		S02	W46	6581	1 D	1	1	1532	1.20	2.10			
LOCKHEED	21	1555 E	1710	1600 U	N00	W42	6581	75 D	1	2	1600	1.80	2.10		20	
	22	0100	0600	NO FLARE	PATROL											
BUCHAREST	22	0705 E	0834 D		N05	W56			1-	3			.95			
BUCHAREST	22	0735 E	0806 D	0741	N08	E53			1-				.92			
	22	1010	1025	NO FLARE	PATROL											
	22	1100	1135	NO FLARE	PATROL											
WENDEL	22	1224 E	1247 D		S01	W31			1-							
	22	1250	1330	NO FLARE	PATROL											
	22	1350	1430	NO FLARE	PATROL											
WENDEL	22	1409 E	1434 D		S01	W32			1-							
	22	1440	1455	NO FLARE	PATROL											
WENDEL	22	1528 E	1556 D		S22	W55			1-							
LOCKHEED	22	2253	2300	2256	N09	E13			1-	2	2256	.10	.10		10	
	23	0030	0600	NO FLARE	PATROL											
ATHENES	23	0832	0840		S18	W65			1-	3		.70	1.90			
	23	1110	1140	NO FLARE	PATROL											
SAC PEAK	23	1642	1745	1708 U	N02	W71	6581	63	2-	3		4.42	8.35		22	
SAC PEAK	23	1732	1743	1736	N08	W06			1-	3		.35	.33		14	
SAC PEAK	23	2108	2123	2113	N16	W08			1-	3		.27	.25		14	
	24	0010	0600	NO FLARE	PATROL											
ATHENES	24	0634	0648 D		S19	W80	6580	14 D	1	2		.60	3.00			
BUCHAREST	24	0659 E	0900 D	0722	S20	W81			1-	3						
BUCHAREST	24	0659 E	0900 D	0844	S20	W81			1-							
BUCHAREST	24	0719 E	0733 D	0729	S15	W42			1-				.81			
→ ARCETRI	24	0810 E	0845 D		S12	W90			1-	2	0845					
WENDEL	24	1306 E	1346 D		S20	W86	6580	40 D	1+				5.00			
	24	2110	2130	NO FLARE	PATROL											
	24	2220	2230	NO FLARE	PATROL											
	24	2245	2250	NO FLARE	PATROL											
LOCKHEED	25	0005	0013	0007	N08	E02			1-	1	0007	.20	.20		10	
	25	0055	0120	NO FLARE	PATROL											
	25	0145	0525	NO FLARE	PATROL											
	25	0530	0545	NO FLARE	PATROL											
	25	0550	0625	NO FLARE	PATROL											
ATHENES	25	0629 E	0638 D		S12	W55			1-	3		.30	.40			
WENDEL	25	0714 E	0730		N10	W04	6586	16 D	1				3.00			
BUCHAREST	25	0720 E	0729 D	0724	N10	E01			1-	3			.11			
	25	1050	1100	NO FLARE	PATROL											
	25	1110	1335	NO FLARE	PATROL											
MCMATH	25	1347	1353	1348	N15	E89	6597		1-	1	1348	.30	1.00			
MCMATH	25	1431	1440	1433	N12	E09	6591		1-	1	1433	.40	.40			
MCMATH	25	1639	1705	1648	S15	W62	6593		1-	1	1648	.20	.40			
LOCKHEED	25	1942	1946	1944	N09	E03			1-	2	1944	.20	.20		10	

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LOCKHEED	25	2353	0005 D	2355	N11	W02			1-	1	2355	.40	.40		20	
	26	0005	0135	NO FLARE	PATROL											
	26	0150	0340	NO FLARE	PATROL											
	26	0550	0700	NO FLARE	PATROL											
WENDEL	26	0915 E	0936 D		N11	W06			1-							
ATHENES	26	0917	0922		N10	W06			1-	3		.50	.50			
	26	1010	1020	NO FLARE	PATROL											
	26	1030	1130	NO FLARE	PATROL											
WENDEL	26	1031 E	1048 D		N12	W08			1-							
	26	1150	1245	NO FLARE	PATROL											
	26	1255	1335	NO FLARE	PATROL											
WENDEL	26	1357 E	1405 D		N14	E67			1-							
MCMATH	26	1855 E	1907	1900	N11	W11	6591		1-	2	1900	.30	.30			
MCMATH	26	1950	2012 D	1952	N11	W11	6591		1-	1	2010	.30	.30			
MCMATH	26	1950	2012 D	2010	N11	W11			1-							
LOCKHEED	26	2308	2336	2321	N12	W15			1-	2	2321	.80	.80		20	
LOCKHEED	27	0025	0037 D	0037 U	N13	W16			1-	1	0037	.40	.40		20	
HONOLULU	27	0036 E	0050 D	0044	N14	W15			1-	1	0044	.41	.41			
	27	0130	0200	NO FLARE	PATROL											
	27	0400	0715	NO FLARE	PATROL											
ATHENES	27	0410 E	0420	0913	S13	W89	6593	10 D	1+	3		.50	4.90			
	27	0750	0815	NO FLARE	PATROL											
BUCHAREST	27	0816 E	0820 D		S13	W85			1-	3						
	27	1005	1010	NO FLARE	PATROL											
	27	1035	1040	NO FLARE	PATROL											
WENDEL	27	1158	1225		N11	W21	6591	27	1				3.00			
	27	1215	1325	NO FLARE	PATROL											
WENDEL	27	1313 E	1335 D		N11	W23			1-							
	27	1330	1350	NO FLARE	PATROL											
	27	1435	1445	NO FLARE	PATROL											
	27	1535	1540	NO FLARE	PATROL											
	27	1605	1615	NO FLARE	PATROL											
LOCKHEED	27	1750	1815	1756	N11	W27			1-	2	1756	.10	.10		10	
LOCKHEED	27	1836	1901	1843	N11	W27			1-	2	1843	.40	.40		20	
LOCKHEED	27	2028	2052	2037	N11	W27			1-	2	2037	.20	.20		10	
LOCKHEED	27	2211	2239	2218	N11	W27			1-	2	2218	.20	.20		10	
	28	0015	0100	NO FLARE	PATROL											
	28	0135	0245	NO FLARE	PATROL											
	28	0300	0305	NO FLARE	PATROL											
	28	0345	0350	NO FLARE	PATROL											
	28	0400	0520	NO FLARE	PATROL											
	28	0535	0600	NO FLARE	PATROL											
ATHENES	28	0713 E	0745		N10	W34	6591	32 D	1	3		2.00	2.40			
	28	0920	0925	NO FLARE	PATROL											
	28	0935	1020	NO FLARE	PATROL											
	28	1030	1045	NO FLARE	PATROL											
	28	1110	1330	NO FLARE	PATROL											
LOCKHEED	28	1745	1800	1750	N10	W39			1-	2	1750	.30	.30		10	

SOLAR FLARES

OCTOBER 1962

OBSERVATORY	DATE OCT 1962	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX INT. %	PROVISIONAL IONOSPHERIC EFFECT
MCMATH	28	1745	1805	1751	N10	W39	6591		1-	2	1751	.30	.40			
LOCKHEED	28	2043	2053	2046	N10	W69			1-	2	2046	.20	.20		10	
	29	0440	0445	NO FLARE	PATROL											
	29	0530	0535	NO FLARE	PATROL											
	29	0750	0810	NO FLARE	PATROL											
	29	0900	0910	NO FLARE	PATROL											
	29	0920	0935	NO FLARE	PATROL											
	29	0950	1030	NO FLARE	PATROL											
	29	1105	1125	NO FLARE	PATROL											
	29	1205	1330	NO FLARE	PATROL											
LOCKHEED	29	2019	2030	2021	N13	W51			1-	1	2021	.40	.50		10	
SAC PEAK	29	2020	2028	2023	N09	W53			1-	2		.23	.29		16	
HONOLULU	29	2020 E	2030 D	2022	N10	W54			1-	2	2022	.82	1.22			
	30	0205	0210	NO FLARE	PATROL											
	30	0300	0315	NO FLARE	PATROL											
	30	0355	0400	NO FLARE	PATROL											
	30	0510	0620	NO FLARE	PATROL											
	30	0745	0755	NO FLARE	PATROL											
	30	0810	0820	NO FLARE	PATROL											
	30	0825	0905	NO FLARE	PATROL											
	30	0910	0950	NO FLARE	PATROL											
	30	1100	1140	NO FLARE	PATROL											
WENDEL	30	1130 E	1144 D		N06	E25			1-							
WENDEL	30	1318 E	1327 D		N06	E25			1-							
	30	1335	1345	NO FLARE	PATROL											
LOCKHEED	30	1801	1824	1805	N09	W64			1-	1	1805	.40	.60		20	
HONOLULU	30	1802 E	1810 D	1804	N09	W76			1-	3	1804	.62	1.05			
SAC PEAK	30	1803	1820	1805	N09	W66			1-	2		.62	1.03		17	
LOCKHEED	30	2355	0018	2358	N08	W69			1-	2	2358	.30	.50		10	
	31	0125	0140	NO FLARE	PATROL											
	31	0445	0900	NO FLARE	PATROL											
	31	0905	0930	NO FLARE	PATROL											
	31	1005	1325	NO FLARE	PATROL											
	31	1405	1440	NO FLARE	PATROL											

COMMERCE - STANDARDS - BOULDER

ATHENES	ATHENS, GREECE
BAKOU	PIRCULI, USSR
CAPETOWN	ROYAL OBSERVATORY, CAPE OF GOOD HOPE
CAPRI F	CAPRI, ITALY (GERMAN)
CAPRI S	CAPRI, ITALY (SWEDISH)
CRIMÉE	SIMEIZ, USSR
HERSTMONCEU	ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX, ENGLAND
HTE-PROVEN	HAUTE-PROVENCE
HONOLULU	HAWAII, USA
IKOMASAN	KYOTO, JAPAN
KIEV KO	KIEV GAO, USSR
KIEV KY	KIEV UNIVERSITY, USSR
LOCKHEED	LOS ANGELES, CALIF., USA
MCMATH	MCMATH-HULBERT PONTIAC, MICH., USA
MOSCOU	MOSCOW-GAISH, USSR
NEW SCHAUIN	FREIBURG, GFR
NERA	NEDERHORST den BERGH, NETHERLANDS
NIZMIR	KRASNAYA PAKHRA, USSR
SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
SALTSJÖBADEN	STOCKHOLM, SWEDEN
SCHAUINS	SCHAUINSLAND, GFR
TACHKENT	TASHKENT, USSR
WENDEL	WENDELSTEIN, GFR

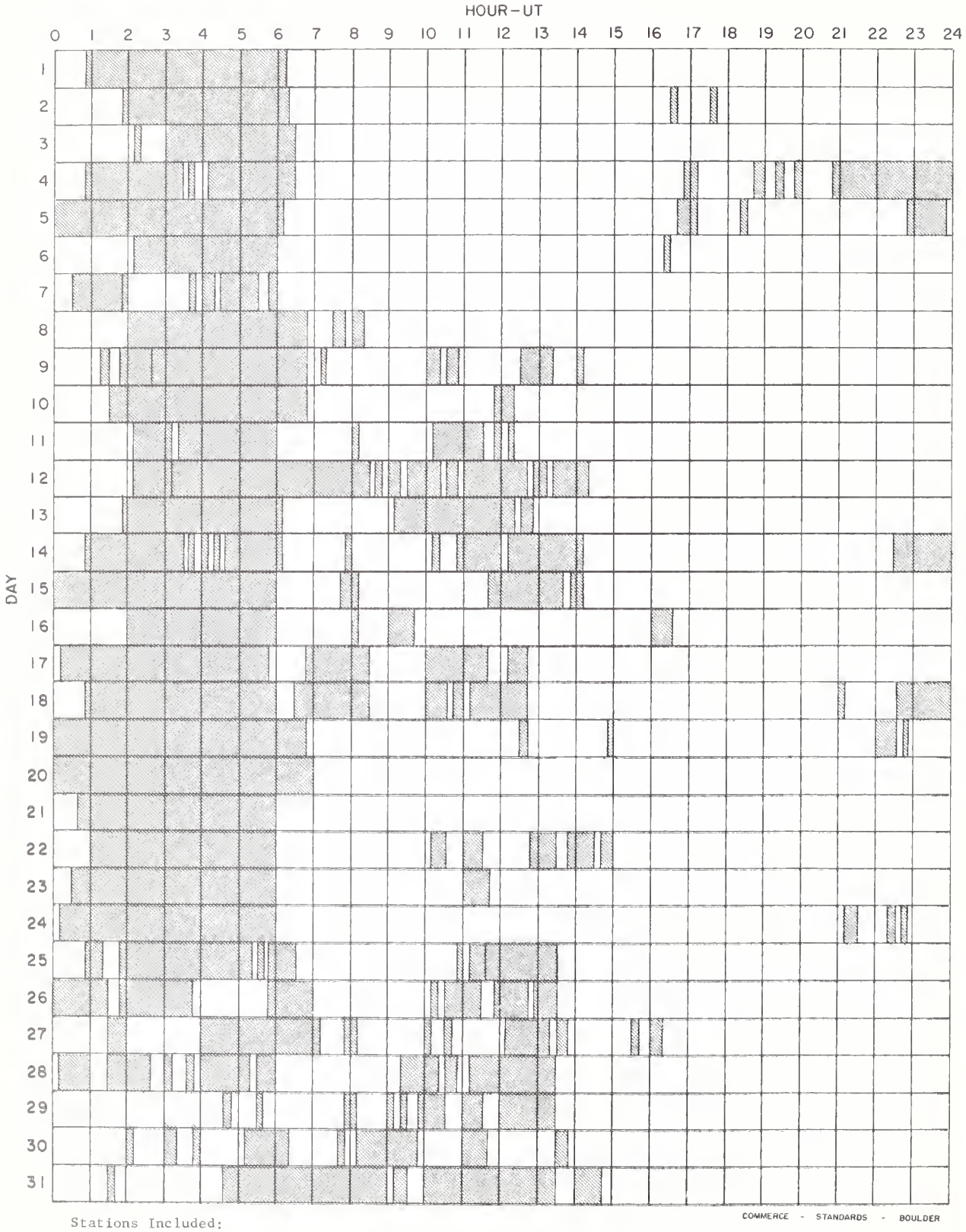
ALL VALUES IN THE MAXIMUM INTENSITY COLUMN FOR SAC PEAK ARE ARBITRARY UNITS (0-40) AND FOR LOCKHEED ARE ARBITRARY UNITS (10-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

OCTOBER 1962



Stations Included:

Arcetri	Capri (Swedish)	Huancayo	McMath-Hulbert
Athens	Herstmonceux	Kodaikanal	Sacramento Peak
Bucharest	Honolulu	Lockheed	

SOLAR FLARES

JULY 1962

OBSERVATORY	DATE JULY 1962	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX INT. °₀	PROVISIONAL IONOSPHERIC EFFECT
	01	0205	0210	NO FLARE	PATROL											
CAPRI-F	01	0538 E	0551 D		S18	E00			1-	2	0548	1.00	1.00			
	02	0325	0330	NO FLARE	PATROL											
CLIMAX	02	1350	1407	1353	S03	W22			1-			.30	.30			
CAPETOWN	02	1353	1400 D	1356	N02	W24			1-		1356	1.00	1.10			
CAPRI-F	02	1500 E	1517 D		N03	W21			1-	3	1502	.50	.50			
	04	0220	0250	NO FLARE	PATROL											
UCCLE	04	0926 E	0938	0932	N04	W36			1-	3	0932					
CLIMAX	04	1626	1633	1627	S04	W58			1-			.60	.80			
CLIMAX	04	2205	2231	2213	N02	W67			1-			.30	.50			
	05	0205	0300	NO FLARE	PATROL											
CAPRI-F	05	1110 E	1118 D		N01	W68			1-	4	1512	.33	1.00			
CAPRI-F	05	1548 E	1552 D		N10	E90			1-	3		.25	1.00			
CLIMAX	05	1715 E	1717 D		N03	W70			1-		1716	.60	1.10			S-SWF
OTTAWA	05	1715	1733 D		N00	W74			1-			.70	1.40			
CLIMAX	05	1932	2003	1938	N02	W80	6463	31	2			3.70	8.50			Slow S-SWF
	06	0210	0255	NO FLARE	PATROL											
ABASTUMANI	06	0639 E	0700 D	0646	S20	W65	6466	21 D	1	3		1.36	4.05		65	
NIZMIR	06	0924 E	0954 D	0944	N08	E90	6480	30 D	1			.93		.75		
CAPRI-F	06	1511 E	1522 D		N01	W90			1-	3		.25	1.00			
CAPRI-F	07	0840 E	0900 D		N02	W90			□							
CAPRI-F	07	0914 E	0940 D		N02	W90			□							
BAKOU	07	0948 E	1047 D	1012	N03	W90	6463	59 D	1+	2	1012	1.15	9.00		65	
CAPRI-F	07	1012 E	1040 D		N02	W90			□							
	08	0200	0215	NO FLARE	PATROL											
	08	0225	0230	NO FLARE	PATROL											
	08	0355	0440	NO FLARE	PATROL											
	10	0230	0250	NO FLARE	PATROL											
CLIMAX	10	1430	1439	1434	N08	E30			1-			.10	.10			
CLIMAX	10	2319	2341	2324	N11	E21			1-			.70	.70			
	11	0215	0225	NO FLARE	PATROL											
UCCLE	11	1007	1037		N10	E20			1-	3						
CLIMAX	11	1503	1526	1510	N10	E14			1-			1.40	1.40			
UCCLE	11	1505	1509 D		N07	E19			1-	3						
	11	2250	2355	NO FLARE	PATROL											
	12	0035	0130	NO FLARE	PATROL											
	12	0200	0205	NO FLARE	PATROL											
	12	1835	1925	NO FLARE	PATROL											
CLIMAX	12	2257 E	2330 D		N10	W03			1-		2310	.90	.90			
	13	0155	0205	NO FLARE	PATROL											
	13	0210	0235	NO FLARE	PATROL											

SOLAR FLARES

JULY 1962

OBSERVATORY	DATE JULY 1962	OBSERVED UNIVERSAL TIME START	END	MAX PHASE	LOCATION APPROX LAT	MER DIST	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS COND	MEASUREMENTS TIME U T	MEAS AREA Sq Deg	CORR AREA Sq Deg	MAX WIDTH Ha	MAX INT	PROVISIONAL IONOSPHERIC EFFECT
CAPRI-F	13	0650	0720 D		N11	W01	6480	30 D	1	5	0711	2.00	2.00			
ALMA-ATA	15	0522	0553	0525	N13	W28			1-		0525	1.03			61	
CAPETOWN	15	1019	1033	1020	N12	W32			1-		1020	1.10	1.30			
CAPRI-F	15	1023 E	1027 D		N12	W27			1-	3	1026	1.00	1.00			
	16	0310	0315	NO FLARE	PATROL											
	17	0155	0300	NO FLARE	PATROL											
	18	0220	0225	NO FLARE	PATROL											
	18	0235	0240	NO FLARE	PATROL											
	18	0310	0315	NO FLARE	PATROL											
	18	0330	0335	NO FLARE	PATROL											
	18	0345	0430	NO FLARE	PATROL											
	18	0440	0455	NO FLARE	PATROL											
	18	1050	1055	NO FLARE	PATROL											
	19	1905	1910	NO FLARE	PATROL											
	20	0215	0220	NO FLARE	PATROL											
OTTAWA	20	1202	1219	1207	N06	E21			1-			.40	.40			
CAPETOWN	20	1202	1239	1207	N06	E26			1-		1207	1.40	1.60			
UCCLE	20	1207	1213 D	1213 U	N05	E27			1-	3						
	21	0145	0245	NO FLARE	PATROL											
	21	0250	0300	NO FLARE	PATROL											
CLIMAX	21	2342 E	2354 D		N06	E68			1-		2342	.50	.90			
	22	0155	0300	NO FLARE	PATROL											
	23	1250	1305	NO FLARE	PATROL											
NEW SCHAU	25	0835 E	0847 D		S15	E26			1-	3	0840		1.00			
	27	0200	0230	NO FLARE	PATROL											
	27	0250	0300	NO FLARE	PATROL											
	28	0200	0310	NO FLARE	PATROL											
CLIMAX	29	1812	2015	1834	S08	W32	6499	123	1			3.30	3.30			

These flare reports are addenda to the July 1962 flares published in CRPL-F 216B August 1962.

COMMERCE - STANDARDS - BOULDER

ATHENES	ATHENS, GREECE
BAKOU	PIRCULI, USSR
CAPETOWN	ROYAL OBSERVATORY, CAPE OF GOOD HOPE
CAPRI F	CAPRI, ITALY (GERMAN)
CAPRI S	CAPRI, ITALY (SWEDISH)
CRIMÉE	SIMEIZ, USSR
HERSTMONCEU	ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX, ENGLAND
HTE-PROVEN	HAUTE-PROVENCE
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IKOMASAN	KYOTO, JAPAN
KIEV KO	KIEV GAO, USSR
KIEV KY	KIEV UNIVERSITY, USSR
LOCKHEED	LOS ANGELES, CALIF., USA
MCMATH	MCMATH-HULBERT PONTIAC, MICH., USA
MOSCOU	MOSCOW-GAISH, USSR
NEW SCHAUIN	FREIBURG, GFR
NERA	NEDERHORST den BERGH, NETHERLANDS
NIZMIR	KRASNAYA PAKHRA, USSR
SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
SALTSJÖBADEN	STOCKHOLM, SWEDEN
SCHAUINS	SCHAUINSLAND, GFR
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INTERVALS OF NO FLARE PATROL OBSERVATIONS

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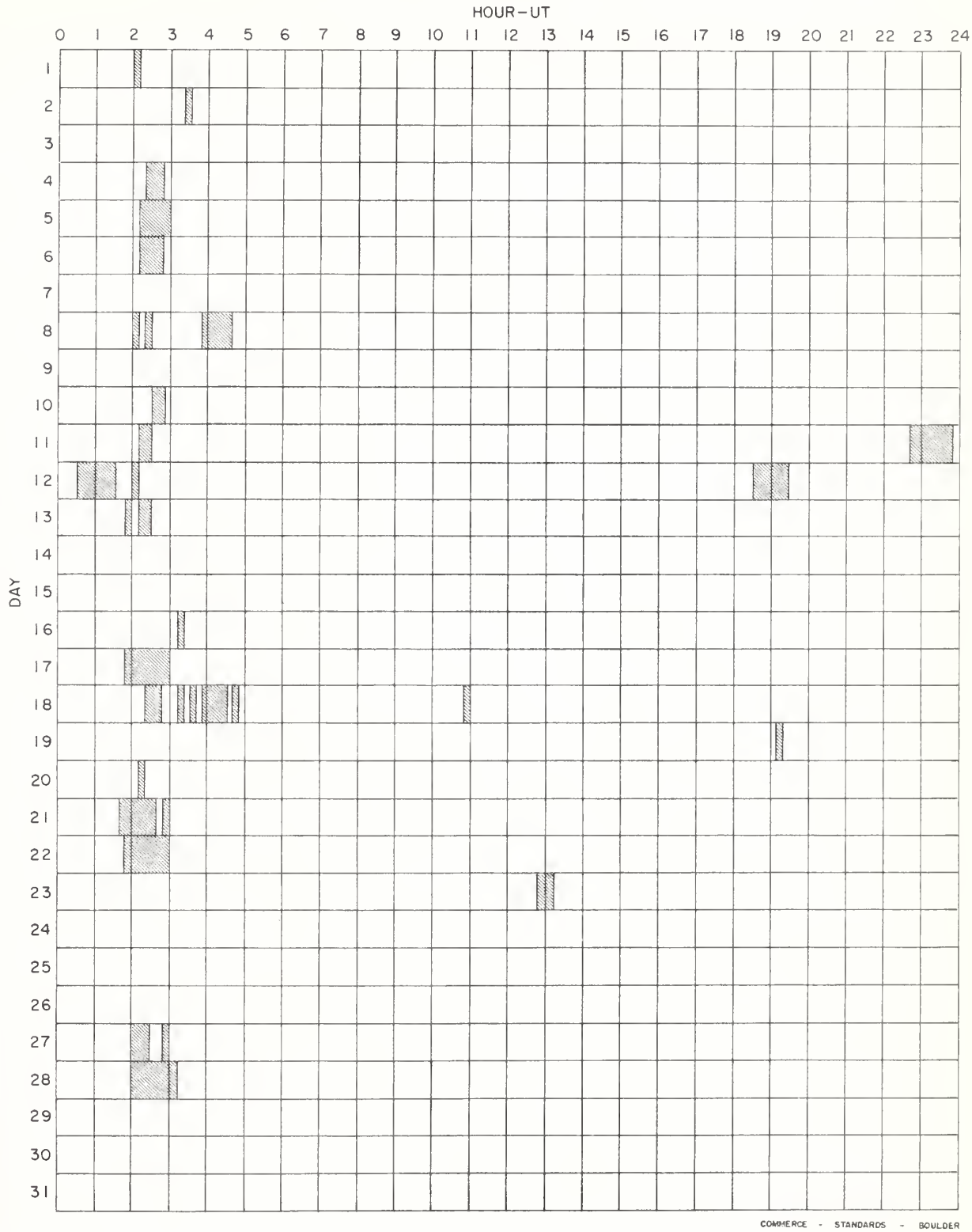
JULY 1962



Stations Include:

Abastumani	Capri F (German)	Herstmonceux	Kharkov	Meudon	Ottawa	Voroshilov
Alma-Ata	Capri S (Swedish)	Honolulu	Kiev KO	Mitaka	Sacramento Peak	Wendelstein
Arcetri	Climax	Huancayo	Kodaikanal	Moscou U.	Schaunisland	
Athenes	Crimée	Ikomasan	Lockheed	Nizmir	Tashkent	
Capetown	Haute - Provence	Istanbul	McMath-Hulbert	Ondrejov	Uccle	

IONOSPHERIC EFFECTS OF SOLAR FLARES

SHORT WAVE RADIO FADEOUTS
SUDDEN COSMIC NOISE ABSORPTION
SUDDEN ENHANCEMENTS OF ATMOSPHERICS
SUDDEN PHASE ANOMALIES
SOLAR NOISE BURSTS AT 18 Mc

JULY 1962 (REVISED)

This replaces the July 1962 table published in CRPL-F 217 Part B issued September 1962. With the receipt of more data it was found desirable to revise the earlier selections.

JULY 1962	UNIVERSAL TIME START	END	MAX	SWF TYPE	IMP	IMPORTANCE ABS	SCNA	SEA	SPA	BUR	WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
05	1429	1431								1	4	MC BO	
05	1715	1730	1721						22		5	BO BO+	1716
+ 05	1716	1726	1721			10	1				4	MC BO	
05	1716	1800	1725					2			5	MC A1 A3 A5 A9 A10	
05	1717	1728		S	1						4	BE MC PR	
05	1749	1753								1	5	MC HA BO	
05	1935	2001		SL	1						5	BE AN HU MC PR	1932
05	1935	2030	1944						35		1	BO	
+ 05	1938	2000	1943			20	1				5	MC BO HA	
05	1939	2005	1947					2+			5	MC A1 A3 A5 A9 A10 HA	
20	2243	2246								1	5	HA MA	
20	2302	2305								1	5	HA MA	
24	0018	0021								1	5	HA MA	*

COMMERCE - STANDARDS - BOULDER

+ Sudden Enhancement of Signal (NBA or NPM) observed by A1, A5 and A14.

AUGUST 1962

AUGUST 1962	UNIVERSAL TIME START	END	MAX	SWF TYPE	IMP	IMPORTANCE ABS	SCNA	SEA	SPA	BUR	WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
01	0954	1006	0957					1			1	TY	
10	2005	2007								1	5	MC BO HA	2004
13	1918	1922								1	4	MC BO	1918
13	2040	2110	2046						5		1	BO	2037
13	2040	2140		SL	1						5	MC AN BE WS	
+ 13	2045	2130U	2050					3			1	A9	
13	2047	2050								1	5	HA MC BO	
13	2210	2216								1	5	HA MC BO	
13	2304	2307								1	5	HA BO	2304
14	0245	0300		S	1+						4	TO CA	*
+ 14	0246	0252								2	5	MA HA	*
14	0247						2				1	TO	*
14	1203	1308	1215					1+			5	PU A1 A5 KU NE PS	1151E
+ 14	1205	1255					2				3	PU KU PS	
14	1205	1255		S	2						5	PU BE DA MC PS	
15	2000	2002								1	5	MC BO HA	
15	2016	2018								1	5	MC BO HA	
15	2041	2043								1	5	MC BO HA	
15	2052	2054								1	5	MC BO HA	
15	2305	2310								1	5	MC BO HA	2306
18	1659	1703								1	4	MC BO	
18	1850	1857								1	4	MC BO	
18	2017	2019								1	5	BO MC HA	
18	2049	2055								1	5	MC BO HA	2048
19	1129	1143		S	1-						1	LI	1128
19	1649	1655								2	1	MC	1648
+ 19	1650	1700	1656						13		1	BO	
19	1652	1710		S	1						5	BE AN FM MC	
19	1900	1903								2	5	MC HA	1854
20	2230	2232								1	5	HA MA	
21	1739	1742								1	5	HA MC	
22	1636	1638								1	5	MC BO HA	
22	2125	2215		G	1+						5	HU AN	
24	2134	2135								1	5	MC BO HA	2127

COMMERCE - STANDARDS - BOULDER

+ Sudden Enhancement of Signal (NBA or NPM) observed by A1, A5 and A14.

SEPTEMBER 1962

SEPTEMBER 1962	UNIVERSAL TIME START	END	MAX	SWF TYPE	IMP	IMPORTANCE ABS	SCNA	SEA	SPA	BUR	WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
01	1904	1915								1	4	MC BO (series of bursts)	
02	1624	1700	1633						13		1	BO	1619
03	1500	0300								1	5	MC BO HA (noise storm)	
03	1829	1835								2	5	MC BO HA	1830
04	1400	0300								1	5	MC BO HA (noise storm)	
07	1512	1800	1542						34		1	BO	1507
+ 07	1515	1558		SL	1+						5	BE HU JU MC WS	
07	1515	1620	1552					1+			5	A5 A1 A9 JU	
10	1738	1740								1	5	HA BO	
11	1802	1804								1	4	MC BO	
+ 12	1455	1520	1500					1			3	A5 A3	1455E

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1962

ARO - OTTAWA

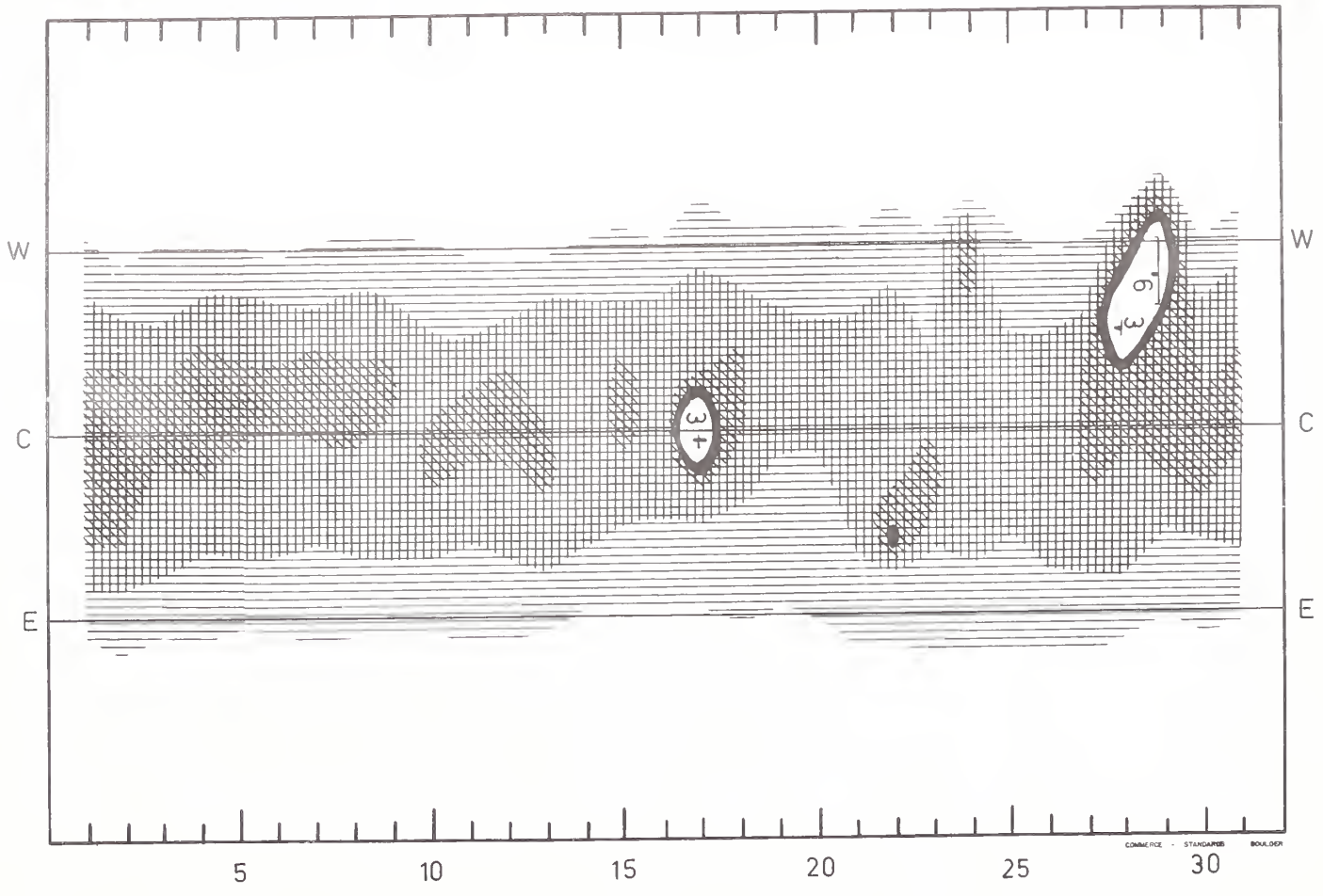
2800 Mc.

Oct. 1962	Type	Start UT	Duration Hrs Mins	Maximum Time UT	Maximum Peak Flux	Maximum Mean Flux	Remarks
13	3 Simple 3 f	1839	43	1841	4	1.5	
15	6 Complex f	1519	14	1524.1	13	6	
	4 Post Increase		34		3	1.5	
18	2 Simple 2	1706	5	1707	22	9	
	4 Post Increase		40		3	1.5	
18	9 Precursor	2005	1 20		2	1.3	
	2 Simple 2	2125	> 5	2127	14	-	
19	3 Simple 3	2033	>1 00	2100	6	-	
21	3 Simple 3 f	1522	4 25	1600	5.5	3	
23	3 Simple 3 f	1642	>4 30	1658	16	-	
27	2 Simple 2	1841	2	1841.5	11	4	
30	1 Simple 1 f	1802.5	2.8	1803.2	6	2.5	

COMMERCE - STANDARDS - BOULDER

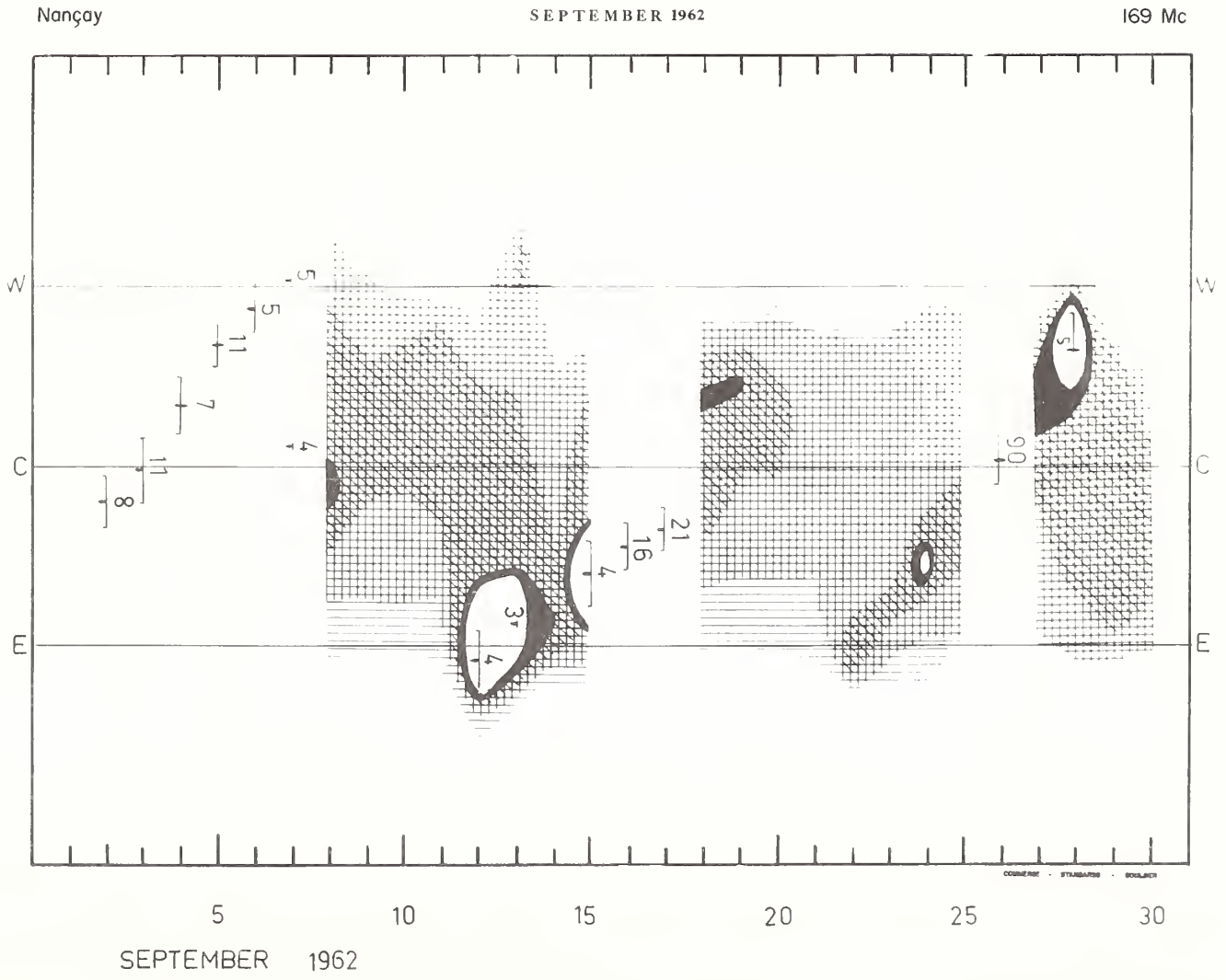
SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATIONS

OCTOBER 1962



OCTOBER 1962

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATIONS



OUTSTANDING OCCURRENCES

OCTOBER 1962

BOULDER 108 Mc.

Oct. 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
12	3	2251.9	2252.1	1.0	3
12	8	2304.2	2305.3	5.0	3
13	3	2038.9	2039.0	1.0	2
16	3	1757.2	1758.5	1.5	3
28	2	1743	1746.0	3.8	2
31	3	2017.0	2017.2	1.4	3

COMMERCE - STANDARDS - BOULDER

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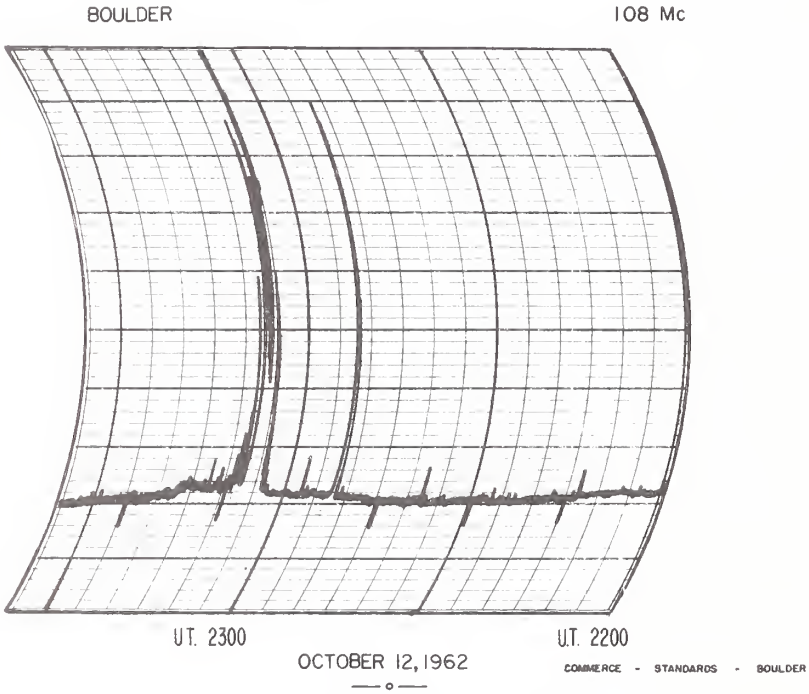
SOLAR NOISE BURSTS



COMMERCE - STANDARDS - BOULDER

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NOMINAL TIMES OF OBSERVATION

OUTSTANDING OCCURRENCES

OCTOBER 1962

BOULDER 108 Mc.

Oct. 1962	U.T.			Oct. 1962	U.T.
1	1301-0028			16	1316-0005
2	1302-0026			17	1317-0003
3	1303-0025			18	1318-0002
4	1304-1603;			19	- -
	1635-0023	I	1741-1824	20	- -
5	1305-0021	I	2137-0021		
				21	- -
6	- -			22	- -
7	- -			23	- -
8	1308-0017	I	1631-1639	24	2000-2353
9	1309-0015			25	1326-2352
10	1310-0014				
				26	1327-2351
11	1311-0012			27	1328-2349
12	1312-0012			28	1329-2348
13	1350-0009			29	1330-2347
14	1314-0008			30	1331-2345
15	1315-0006			31	2100-2344

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

OCTOBER 1962

HAO BOULDER

7.6 - 41 Mc.

Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity	
2 Oct	III	1825.45-1827	1	12-41
10	III	1833-1833.30	1-	27-41
11	III	1417.15-1417.45	1-	22-41
	III	1437.30-1438	1-	24-41
	III	1440.30-1441	1-	27-41
	III	1536.15-1536.45	1	21-41
	III	1625.45-1626.30	1	14-41
	III	1626.30-1627.45	1+	11½-41
	III	1639.15-1639.30	1-	31-41
	III	1643-1643.30	1	22-41
	III	1649-1650	1+	12-41
	III	1704-1704.30	1-	26-41
	III	1705-1706.15	1+	11½-41
	III	1706.30-1707.15	1	14-41
	III	1820.30-1821.15	1	11-41
	III	1822.30-1824.15	2-	11-41
	III	1826.30-1827.15	1-	21-41
	III	1850.15-1851.30	1	20-40
	III	1858.15-1859	1+	10½-41
	III	1928.45-1929.15	1	20-41
	III	1948.30-1948.45	1-	27-41
	III	1959-1959.15	1-	24-41
	III	2018-2018.45	1-	21-41
	III	2026-2026.30	1-	23-41
	III	2027-2027.30	1	23-41
	III	2032-2032.30	1-	22-41
	III	2035.30-2036	1-	22-41
	III	2231-2231.45	1+	22-41
	III	2232-2232.30	1	22-41
	III	2236.15-2237	1	22-41
	III	2250.45-2251.15	1	23-41
	III	2251.30-2252	1-	23-41
12	III	1425.30-1426	1+	22-41
	III	1447.30-1447.45	1-	24-41
	III	1455.45-1456	1-	25-41
	III	1510.15-1510.30	1-	17-32
	III	1511.15-1511.45	1-	14-37
	III	1520.30-1520.45	1	20-41
	III	1521-1521.30	1	20-41
	III	1613.30-1614	1-	23-35
	III	1638.45-1639.30	1+	11-41
	III	1747.30-1748	1	21-41
	III	1748.45-1749	1-	25-41
	III	1749.45-1750	1-	24-41
	III	1928-1929	1+	13-41
	III	1931.15-1931.45	1-	22-37
	III	1932.30-1933.30	1	17-41
	III	1935.45-1936.15	1	22-41
	III	1936.30-1937	1-	20-37
	III	2007-2007.30	1	21-41
	III	2007.30-2008	1-	20-41
	III	2021.15-2022	1-	24-38
	III	2046.45-2047	1-	24-33
	III	2051-2051.30	1-	25-41
	III	2059.30-2100.45	1+	16½-41
	III	2136-2136.30	1-	24-37
	III	2137.45-2138	1-	22-41
	III	2138-2138.30	1	22-41
	III	2140-2140.15	1-	22-38
	III	2148.45-2149	1-	28-38
	III	2203-2203.30	1-	20-36
	III	2211.30-2213	1-	24-39
	III	2234.15-2234.45	1-	24-39
	III	2239.30-2239.45	1-	20-41
	III	2241.30-2242	1-	22-40
	III	2248-2249.30	2-	19-41
	III	2251.15-2251.45	1-	22-36
	III	2300.15-2304	3	19-41
	III	2304.15-2304.45	1	22-41
	III	2307.30-2308	1-	28-41

Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity	
12 Oct	III	2317.30-2317.45	1-	29-39
	III	2318.30-2319	1-	29-41
	III	2322-2322.30	1	24-41
	III	2329.15-2329.30	1-	28-37
13	III	1415.30-1416	1	22-41
	III	1437.15-1438.15	1+	23-41
	III	1503.30-1504	1+	22-41
	III	1504-1504.45	1+	22-41
	III	1514-1516.45	1+	20-41
	III	1516.45-1517.30	1-	23-41
	III	1617.30-1618	1	21-41
	III	1618-1618.45	1+	21-41
	III	1622.30-1623.30	1	21-41
	III	1625-1626.45	1+	22-41
	III	1640.30-1641	1+	23-41
	III	1652-1652.30	1-	21-41
	III	1657-1657.30	1	22-41
	III	1701.15-1701.30	1-	24-37
	III	1704-1704.30	1	17-41
	III	1704.45-1705	1	21-41
	III	1737.30-1739.30	1-	11-41
	III	1741-1742.30	1+	11-41
	III	1742.30-1744	1+	11-41
	III	1748.30-1748.45	1-	22-38
	III	1808.30-1808.45	1	23-41
	III	1809.15-1811.30	2-	10-41
	III	1813.30-1815	1+	10-41
	III	1815.30-1817.15	1-	21-41
	III	1852-1852.45	1	12½-41
	III	1907-1908	1+	12-41
	III	1910-1910.30	1	16½-41
	III	1923.30-1924.30	1+	12½-41
	III	1925.15-1926.30	2-	12½-41
	III	1927.30-1928.30	1	13-41
	III	1928.45-1929.15	1	13-41
	III	1932.30-1933	1	16½-41
	III	1933.30-1933.45	1-	17-41
	III	1934.15-1935	1+	12½-41
	III	1940-1940.30	1	22-41
	III	1940.30-1941	1+	22-41
	III	1942.30-1942.45	1-	22-41
	III	1946.30-1948.30	1	17-41
	III	1948.30-1949.30	1	17-41
	III	1950.30-1951.15	1	29-41
	III	1959.45-2000.15	1-	22-41
	III	2005.30-2006.15	1	15-41
	III	2009-2009.15	1-	28-41
	III	2009.45-2010	1-	23-41
	III	2021.45-2022.30	1-	23-41
	III	2029.45-2033.30	1-	22-41
	III	2033.30-2034.15	2	13-41
	III	2034.45-2037.15	2	13½-41
	III	2038-2038.15	1+	22-41
	III	2105-2105.30	1-	25-41
	III	2115.30-2117.30	1-	22-41
	III	2119-2120	1	22-41
	III	2122.15-2122.30	1	23-41
	III	2123.45-2124	1-	27-41
	III	2143.15-2143.30	1-	22-35
	III	2154.15-2155	1	21-41
	III	2201.45-2202.15	1	21-41
	III	2219-2219.30	1	22-41
	III	2301.45-2302	1-	27-41
	III	2329.15-2329.45	1+	30-41
14	III	1615.45-1616	1-	17-34
	III	1856.30-1857	1-	21-41
15	III	1525.30-1526	1-	24-39
	III	1605-1605.15	1	25-41
	III	1632-1632.30	1+	17-41
	III	1641.15-1641.45	1-	17-38
	III	1712.15-1712.45	1-	22-41
	III	1715-1715.45	1	22-41

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

OCTOBER 1962

HAO BOULDER

7.6 - 41 Mc.

Date 1962	Bursts			Frequency Range (mc)	Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity			Type	Time (U.T.)	Intensity	
15 Oct	III	1716.30-1717.15	1	21-41	25 Oct	III	2032.30-2034	1	22-38
	III	1719-1719.45	1+	15-41		III	2040.15-2040.30	1-	30-36
	III	1730.45-1731.30	1-	25-41		III	2049.45-2050	1-	23-41
	III	1828.15-1828.30	1-	20-38	27	III	1837.15-1837.30	1-	21-41
	continuum	1910-2120	1-	22-41		III	1838.15-1839.15	1+	16-41
	III	2125.45-2126.30	1+	20-41		III	1841.30-1842.15	1	16-41
	III	2210-2210.30	1+	20-41		III	1845.15-1846	1-	22-41
16	III	1354.45-1355	1-	24-30		III	1847.15-1847.45	1-	22-34
	III	1400.30-1401	1-	29-41		III	2141.45-2142	1-	22-41
	III	1405.30-1406	1-	23-34		III	2200.30-2201.15	1	21-41
	III	1716.30-1718	1	21-41		III	2211.45-2214.30	1+	21-41
	III	2028.30-2029.30	1	22-41	28	III	1324-1324.15	1	25-38
	III	2029.45-2030.30	1+	20-41		III	1409.45-1410.15	1-	27-41
	III	2030.30-2033.15	1+	16½-41		III	1421.15-1421.45	1	23-41
	III	2034-2034.15	1	21-41		III	1434.45-1436.15	1	25-41
	III	2034.30-2034.45	1	23-41		III	1436.45-1437.15	1	25-41
17 c	III	1413-1413.30	1-	21-41		III	1615.30-1616.30	1+	16-41
	III	1414.30-1415.15	1	25-41		III	1738.15-1738.45	1	22-41
	III	1416.30-1417	1	31-41		III	1743.45-1748	1+	12-41
	III	1422.30-1423.15	1-	27-40		III	1749.30-1754	1+	12-41
	III	1458-1458.15	1	24-41		III	1819.45-1820	1-	25-35
	III	1758-1758.30	1-	26-39		III	1940-1941	1+	13-41
	III	1816-1816.15	1-	23-41		III	1957.45-1958.30	1	16-41
	III	1828-1828.15	1	22-41		III	2031.15-2032.15	1	13-41
	III	2221.30-2221.45	1	22-41		III	2043.45-2044.45	1	14½-41
	III	2230-2230.15	1	23-41		III	2117.45-2118.15	1	23-41
	III	2236.45-2237	1-	23-41		III	2118.30-2119.30	1	16-41
18	III	1823.30-1824.15	1	20-41		III	2128.45-2129.45	1+	19-41
	III	1910-1910.30	1-	22-41		III	2130.30-2131	1+	22-41
	III	2025.45-2026.30	1	22-41		III	2132.15-2132.30	1-	22-41
19	IV	2033.30-2128	1-	21-41		III	2133-2134.15	1+	19-41
	III	2033.30-2038.15	2	17-41		III	2135-2136	1+	19-41
	III	2039-2039.45	1	22-41		III	2237-2237.45	1	24-41
	III	2042.45-2043.15	1	21-41		III	2239.30-2240	1-	29-41
	III	2058-2059.15	1	25-41		III	2255.45-2256	1	27-41
	II	2100-2115	1	22-41	29	III	1417.45-1419	1-	31-41
	III	2315.15-2315.30	1-	25-41		III	1700-1700.15	1-	22-41
20	III	1617.45-1618	1-	27-41		III	1703-1703.30	1-	21-41
	III	1644-1644.45	1	28-38		III	1706.45-1709.15	1	16-41
	III	1839-1839.15	1-	23-41		III	1712.45-1713.30	1-	16½-41
	III	1839.45-1840.45	1	23-41		III	1713.30-1714.15	1	16½-41
	III	1841-1841.30	1	22-41		III	1714.45-1715	1-	21-41
	III	2103.15-2104	1	24-41		III	1715.15-1715.45	1-	20-41
	III	2217-2218	1-	23-41		III	1715.45-1716.30	1	21-41
	III	2218.30-2220.15	2	21-41		III	1716.45-1717.30	1-	20-41
	III	2221.30-2221.45	1+	22-41		III	1811.45-1812.30	1	15-41
	III	2222.45-2223	1-	23-41		III	2019.45-2020.45	1	21-41
	III	2223.45-2224.15	1-	25-41		III	2021.15-2023.45	1+	16-41
21	III	1423-1423.30	1-	24-41		III	2229.15-2229.45	1	21-41
	III	1434-1434.45	1-	23-41		III	2237.15-2237.30	1-	24-41
	III	1436-1437	1-	23-41	30	III	1802.30-1805.15	1+	13-41
	III	1440-1440.15	1	22-31		III	1835-1835.30	1-	21-41
22	III	1703.45-1704.45	2	16-41		III	1919.15-1922	1+	16-41
	III	1816.15-1816.45	1-	21-41		III	2140.45-2141.15	1-	22-41
	III	2029.15-2029.30	1-	25-39		III	2209.15-2209.30	1	22-38
	III	2034.15-2034.30	1-	23-39		III	2215.15-2215.30	1-	22-41
23	III	1649-1653.45	3	21-41	31	III	1811.15-1811.45	1	20-41
	II	1656-1706	3	13-41		III	1927.15-1927.45	1	22-41
	IV	1656-1813	1-	13-41		III	1928-1928.30	1-	23-41
	III	1712-1712.45	1+	12-41		III	1951.15-1952	1+	16-41
	III	1714-1717	1	22-41		III	2005.30-2006	1+	20-41
	III	1734.15-1737.30	1+	20-41		III	2216.45-2218.45	2	20-41
25	III	1414.45-1416.45	1	23-41					
	III	1938.45-1939	1-	26-41					
	III	2027-2027.45	1-	23-41					

c = Many unreported III's, 1435-1610, 23-41

COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

JULY–AUGUST 1962

Fort Davis 25-580, 2100-3900 Mc

1962	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES U T	INT		
Jul. 1	1222-2208					
Jul. 2	1540-1602 1705-2400					
Jul. 3	1215-2400					
Jul. 4	1215-2400					Weak I during day
Jul. 5	1224-2400	I	2020- 2140	1	250-100	Weak I during day
Jul. 6	1234-2400					
Jul. 7	1235-2400					
Jul. 8	1234-2400					
Jul. 9	1234-2400					
Jul.10	1234-2400					
Jul.11	1238-2400					
Jul.12	1236-2400					
Jul.13	1237-2400					
Jul.14	1237-1615 1627-2400					
Jul.15	1237-2400					
Jul.16	1237-1908 1929-2400					
Jul.17	1500-2400					
Jul.18	1238-2346					
Jul.19	1238-2400					
Jul.20	1238-2400					
Jul.21	1238-2400					
Jul.22	1238-2400					
Jul.23	1238-2400					
Jul.24	1238-1737 1836-2400					
Jul.25	1238-2400					
Jul.26	1238-2400					
Jul.27	1238-2400					
Jul.28	1238-2400					
Jul.29	1238-2400					
Jul.30	1238-2400					
Jul.31	1245-2400					
Aug. 1	1246-2400					
Aug. 2	1246-2250 2343-2400					
Aug. 3	1246-2400					
Aug. 4	1247-2400					
Aug. 5	1246-2400					
Aug. 6	1247-2323 2336-2400					
Aug. 7	1247-2400					
Aug. 8	1247-2400					
Aug. 9	1247-2400					
Aug.10	1247-2400					
Aug.11	1247-2400					
Aug.12	1247-2400					
Aug.13	1247-2354	IIIG	2035-2038	1-2	580-25	
		IIIG	2040-2042	3	580-25	
		II	2042.0-2045	3	75-45	
		IIIG	2048-2050	2	450-25	
		IIIG	2124-2128	2	125-25	
Aug.14	1248-2400					
Aug.15	1247-2400	IIIG	2017-2019	3	200-25	Weak I during day
		IIIG	2305-2311	2-3+	400-25	
Aug.16	1247-2400	IIIG	1255-1300	3+	580-25	
		IIIG	1342-1349	1-2	580-25	
		IIIG	1444-1446	1-3+	580-25	
		IIIG	1543-1546	2	450-150	
Aug.17	1248-2400					Weak I throughout day

SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

AUGUST–SEPTEMBER 1962

Fort Davis 25-580, 2100-3900 Mc

1962	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES UT	INT		
Aug 18	1247-2400	IIIG	1420-1422	2	350-25	
		IIIG	1854-1856	2	400-25	
Aug. 19	1247-2400	IIIG	1651-1655	3	450-25	
		II	1653 3-1655	3	150-60	
		IIIG	1857-1900	2	450-25	
Aug 20	1247-2400					
Aug 21	1303-2400					
Aug 22	1303-2400					
Aug 23	1303-2400					
Aug. 24	1303-2400					
Aug 25	1303-2400					
Aug. 26	1303-2400					
Aug 27	1303-2400					
Aug. 28	1303-2400					
Aug 29	1303-2400					
Aug 30	1303-2400					
Aug. 31	1303-2400					
Sep 1	1303-2400	IIIG	1904-1908	1-2	90-25	
Sep 2	1303-2400					Weak I throughout day
Sep 3	1303-2400	IIIG	1828-1835	3+	350-25	Weak I throughout day many type III 75-25 Mc/s and reverse-drift-pairs during day
Sep 4	1303-2400					Weak I throughout day many type III 75-25 Mc/s during day
Sep 5	1303-2400	IIIG	1414-1416	2	150-25	Weak I throughout day
Sep. 6	1303-2400					Weak I throughout day
Sep. 7	1303-2400	Uncl	1514-1520	2	75-25	Weak I throughout day 1514· Uncl. resembles type II
		IV	1517-1702	1-3	580-180	with harmonic but does not drift
Sep 8	1304-2400	IIIG	1352-1353	2	320-110	Weak I throughout day
		IIIG	1409-1411	2	300-50	
		IIIG	1657-1658	2	200-30	
		IIIG	1856-1857	2	420-50	
		IIIG	2124-2126	1	230-100	
Sep 9	1303-2400					Weak I during day
Sep.10	1303-2400	IIIG	2315-2320	2	580-100	2318· Reverse drift burst 450-350 Mc/s
Sep 11	1303-2400					
Sep 12	1303-2400					
Sep.13	1303-2400					
Sep.14	1303-2400					Weak I throughout day
Sep.15	1319-2400					Weak I throughout day
Sep 16	1319-2400					Weak I throughout day Many weak type III 100-25 Mc/s during day
Sep 17	1319-2400					
Sep 18	1319-2400					
Sep 19	1319-2400					
Sep 20	1319-2400					
Sep.21	1320-2400					
Sep.22	1316-2400					
Sep.23	1316-2400					Many weak type III 75-25 Mc/s during day
Sep.24	1316-2400					
Sep.25	1317-2400					
Sep 26	1316-2400					Weak I throughout day
Sep.27	1316-2400					
Sep.28	1317-2400					
Sep.29	1316-2400					
Sep.30	1316-2400					

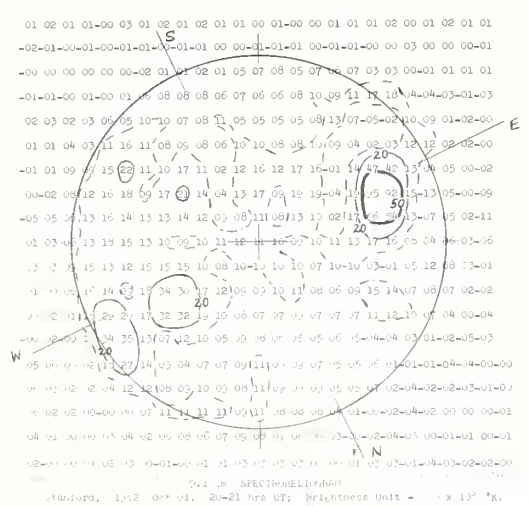
COMMERCE – STANDARDS – BOULDER

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

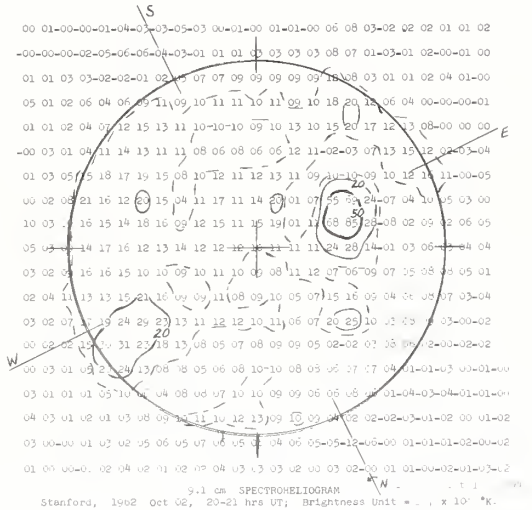
STANFORD

OCTOBER 1962

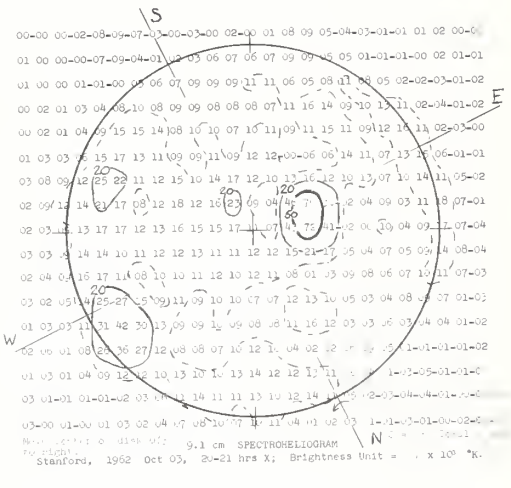
9.1 cm



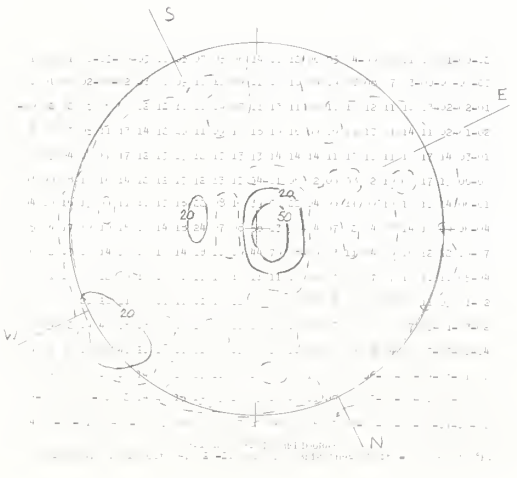
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 01, 20-21 hrs UT; Brightness Unit = x 10⁵ °K.

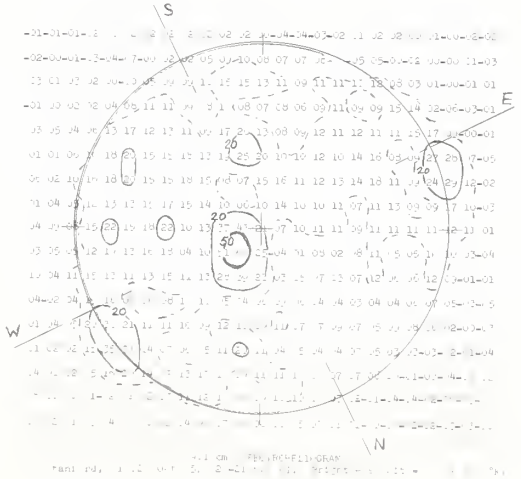


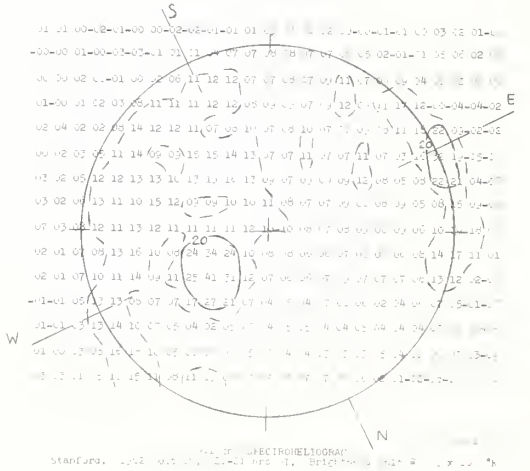
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 02, 20-21 hrs UT; Brightness Unit = x 10⁵ °K.



9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 03, 20-21 hrs X; Brightness Unit = x 10⁵ °K.







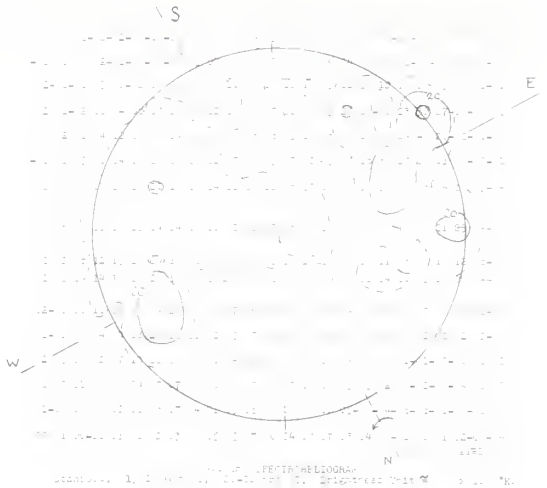
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD

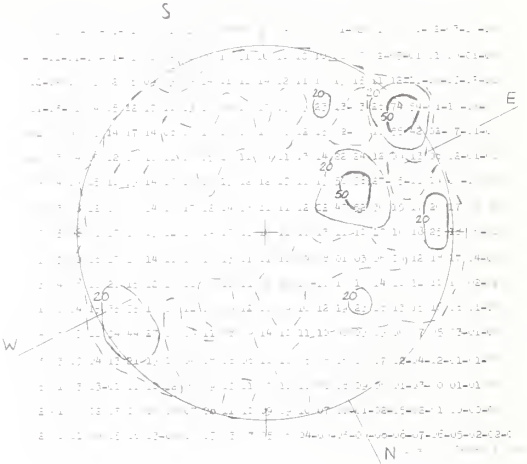
OCTOBER 1962

9.1 cm

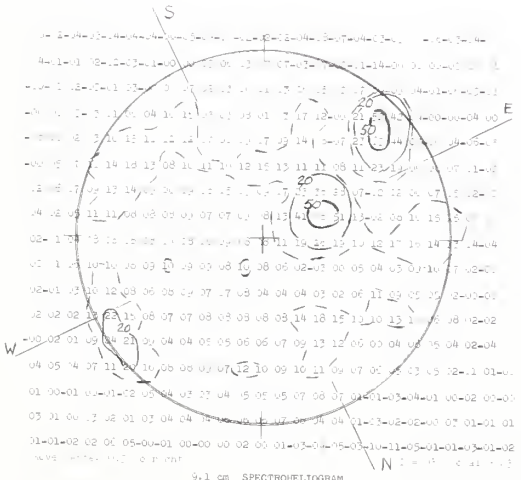
1962 OCTOBER 07



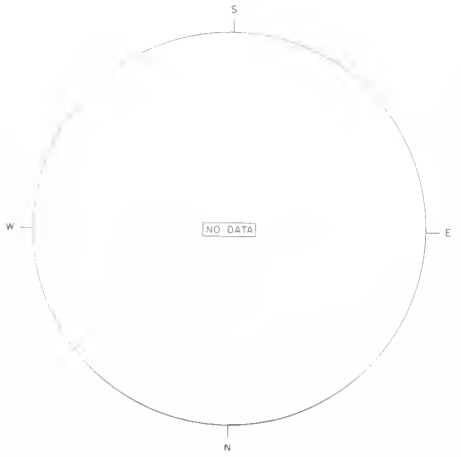
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct ... 20-21 hrs UT; Brightness Unit = ... x 10⁸ °K.



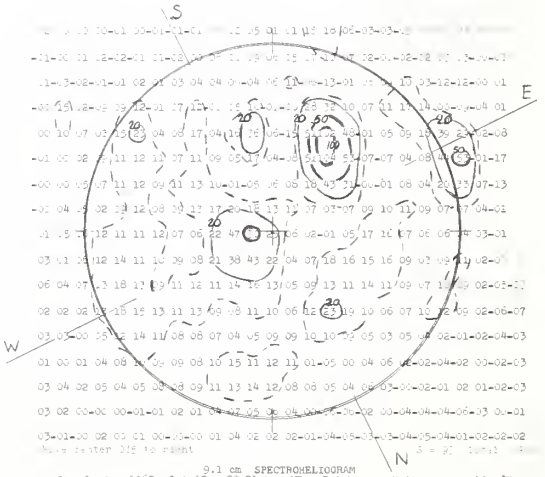
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct ... 20-21 hrs UT; Brightness Unit = ... x 10⁸ °K.



9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 10, 20-21 hrs UT; Brightness Unit = ... x 10⁸ °K.



1962 OCTOBER 11

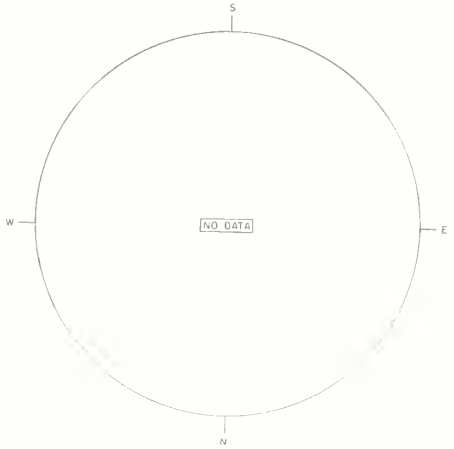


9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 12, 20-21 hrs UT; Brightness Unit = ... x 10⁸ °K.

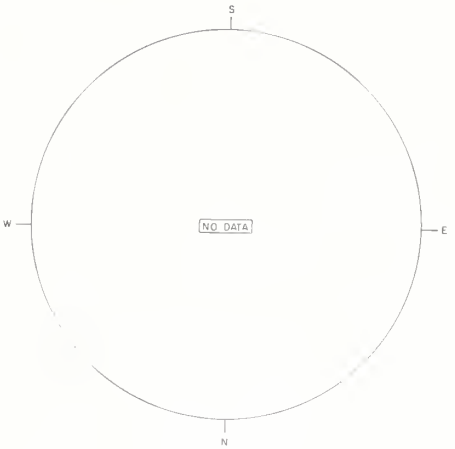
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

OCTOBER 1962

STANFORD

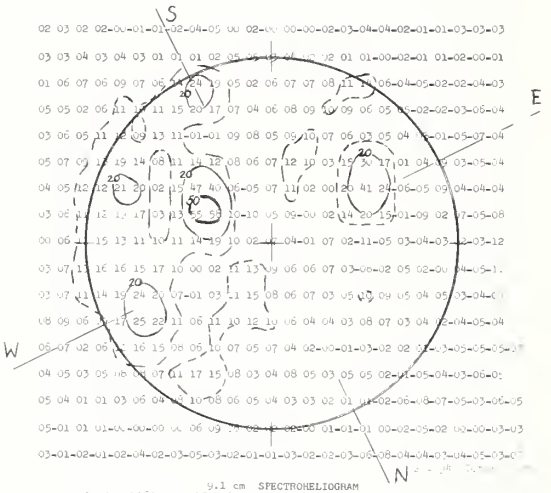


1962 OCTOBER 13

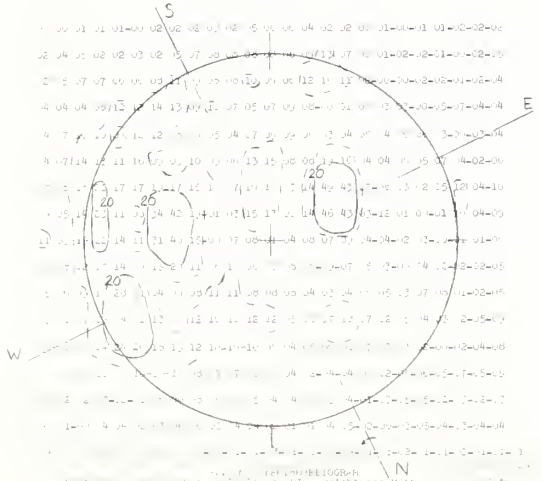


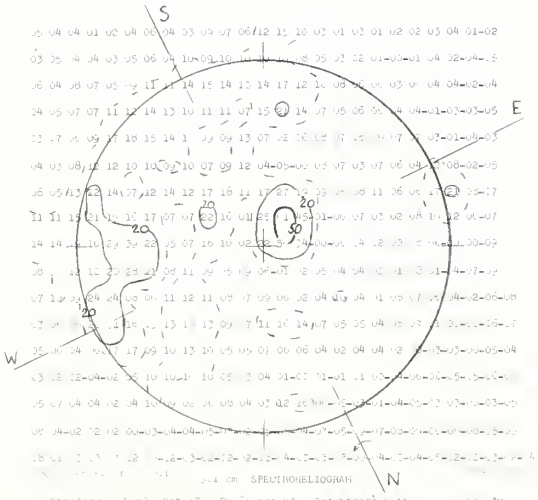
1962 OCTOBER 14

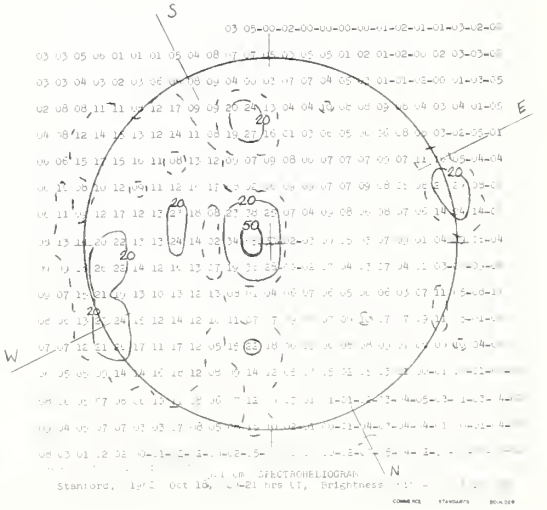
9.1 cm



9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 15, 20-21 hrs UT; Brightness Unit = [illegible] x 10⁴ °K.







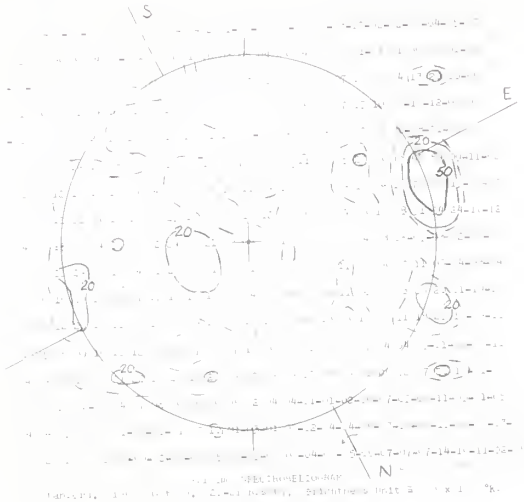
IVK

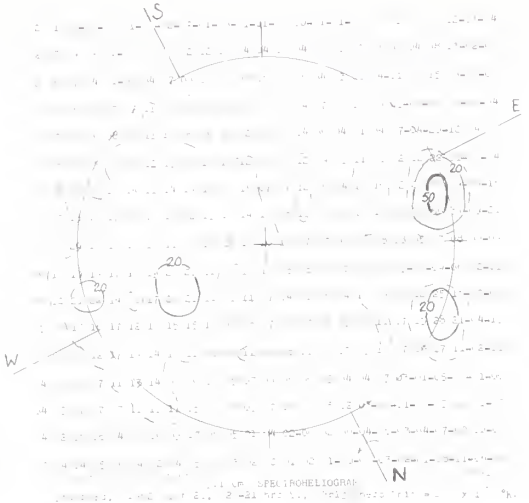
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

OCTOBER 1962

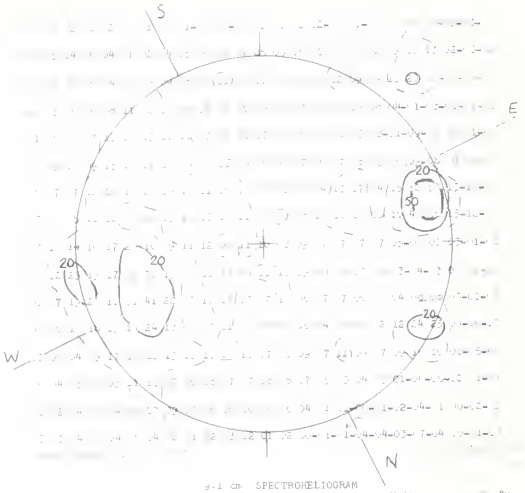
STANFORD

9.1 cm



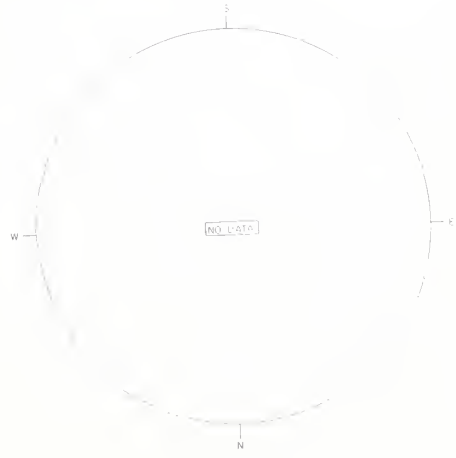


9.1 cm SPECTROHELIOGRAM

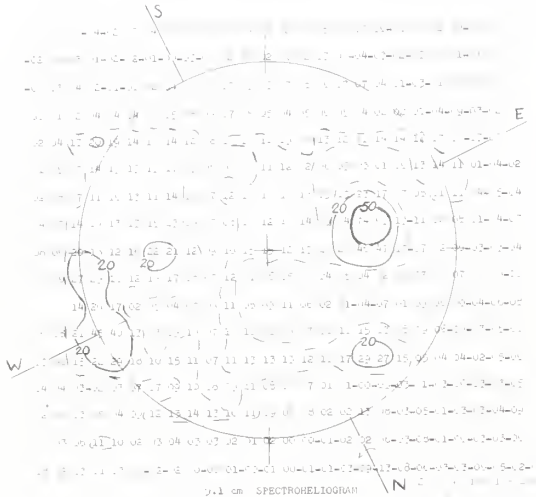


9.1 cm SPECTROHELIOGRAM

Start: [illegible] 0.5 21, 2-21 hrs UT. Brightness Unit = [illegible] x 10⁷ °K.

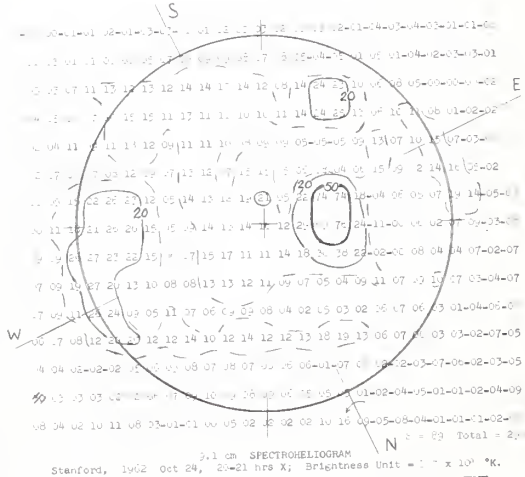


1962 OCTOBER 22



9.1 cm SPECTROHELIOGRAM

Stanford, 1962 Oct 23, 2d-2 hrs UT; Brightness Unit = [illegible] x 10⁷ °K.



9.1 cm SPECTROHELIOGRAM

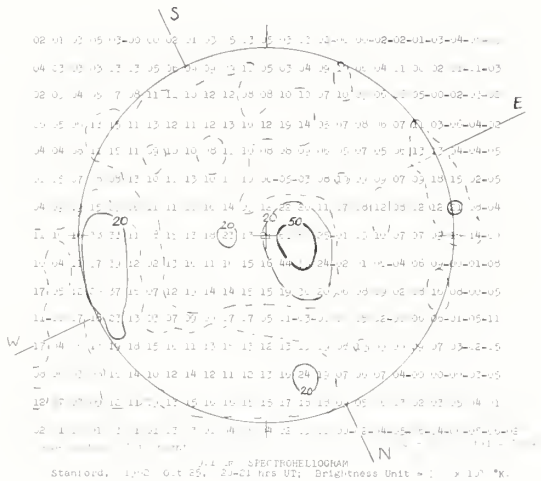
Stanford, 1962 Oct 24, 20-21 hrs X; Brightness Unit = [illegible] x 10⁷ °K.

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

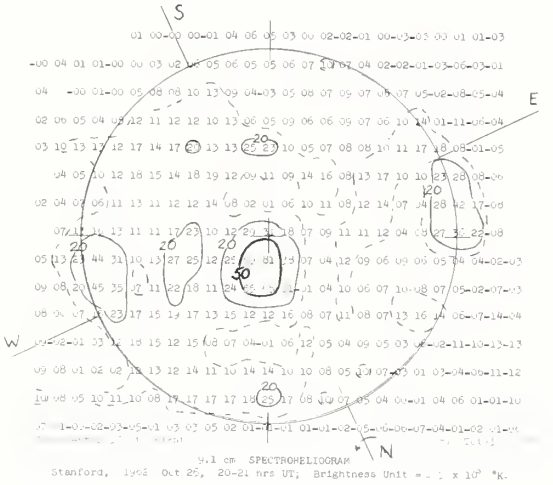
OCTOBER 1962

STANFORD

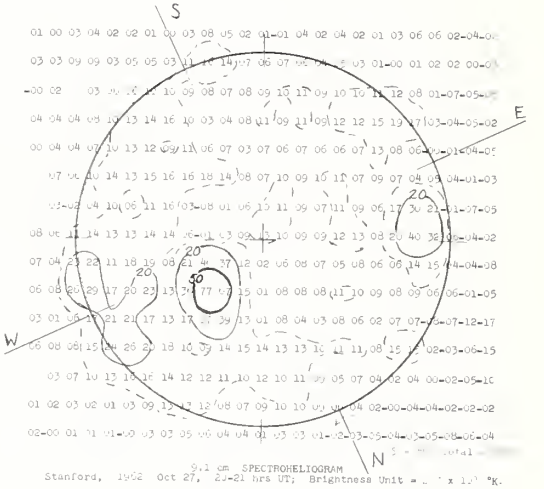
9.1 cm



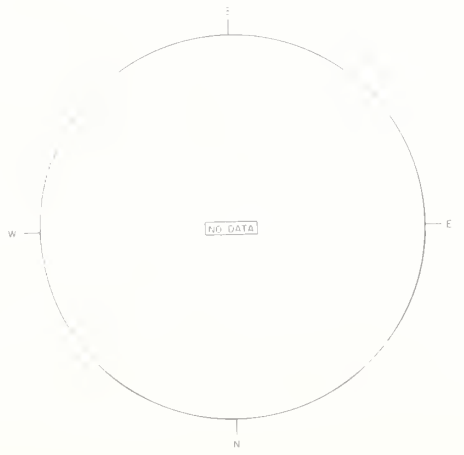
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 25, 20-21 hrs UT; Brightness Unit = [illegible] x 10⁴ °K.



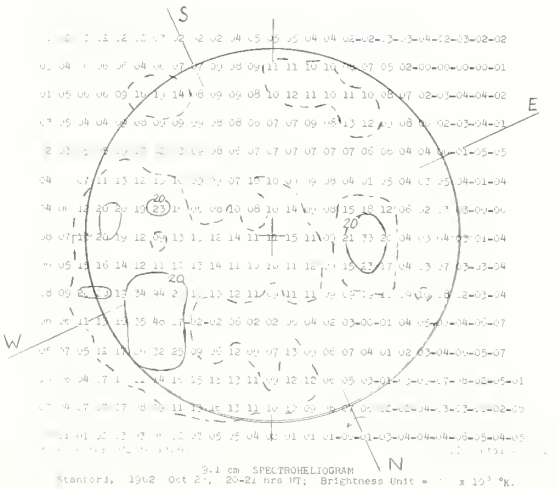
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 26, 20-21 hrs UT; Brightness Unit = [illegible] x 10⁴ °K.



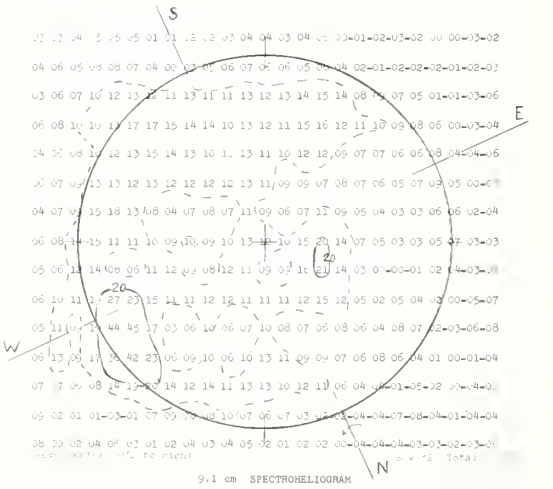
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 27, 20-21 hrs UT; Brightness Unit = [illegible] x 10⁴ °K.



1962 OCTOBER 28



9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 29, 20-21 hrs UT; Brightness Unit = [illegible] x 10⁴ °K.



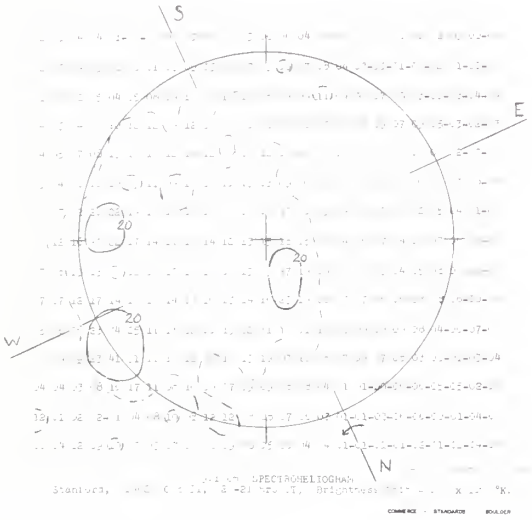
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 Oct 30, 20-21 hrs UT; Brightness Unit = [illegible] x 10⁴ °K.

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

OCTOBER 1962

9.1 cm

STANFORD



SPECTROHELIOGRAM

Stanford, [illegible] -21 hrs. UT, Brightness [illegible] x [illegible] °K.

COMMERCE - STANDARDS BOULDER

COSMIC RAY INDICES

Climax Neutron Monitor

IGC STATION B 305

SEPTEMBER 1962

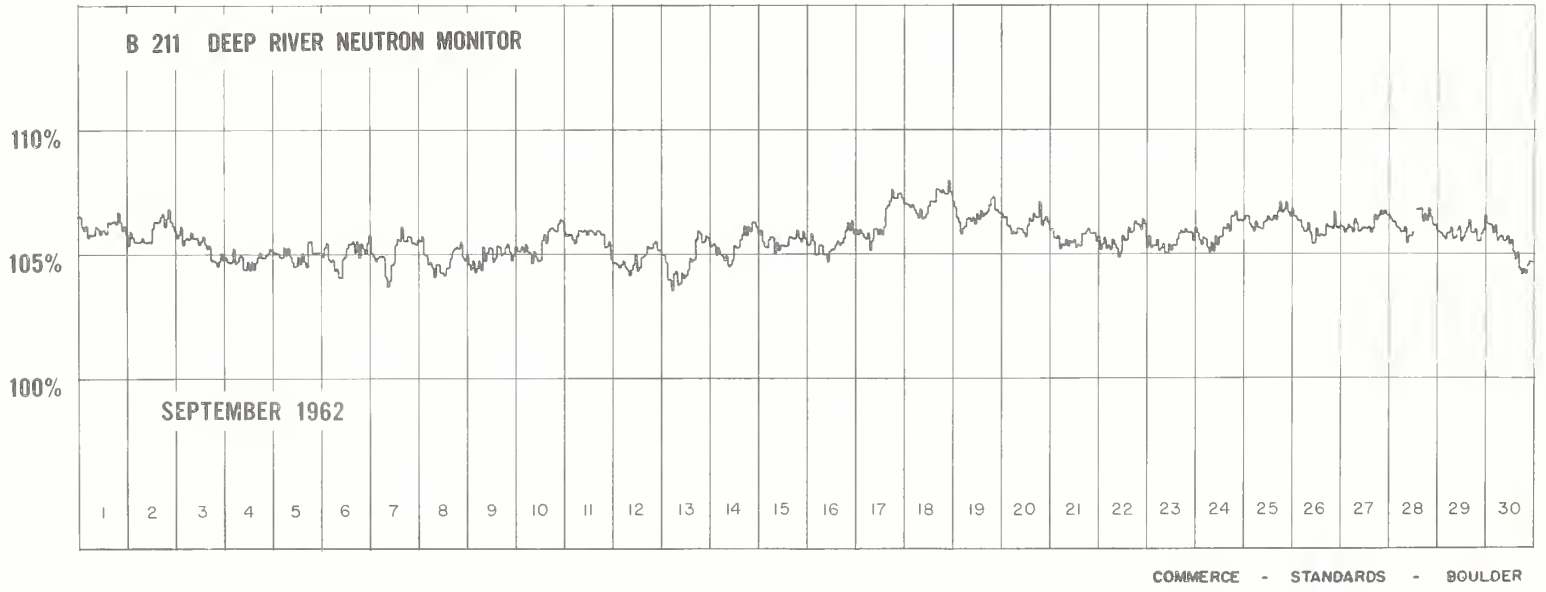
Sept. 1962	Daily average counts/hr*	Sept. 1962	Daily average counts/hr*
1	3087.6	16	3042.9 + 33
2	3088.2	17	3068.4
3	3081.1	18	3072.0 + 34
4	3044.4	19	3091.7 + 6
5	3040.7	20	3077.6
6	3043.5	21	3067.8
7	3048.2	22	3072.4
8	3073.6	23	3071.7
9	3063.8	24	3081.1
10	3060.8	25	3080.0
11	3047.1	26	3091.4
12	3039.6	27	3089.8
13	3039.7	28	3090.9
14	3041.3	29	3080.9
15	3045.0 + 21	30	3067.2

* Scaling Factor 128

\+ Number of Section Hours

COSMIC RAY INDICES

(Pressure Corrected Hourly Totals)

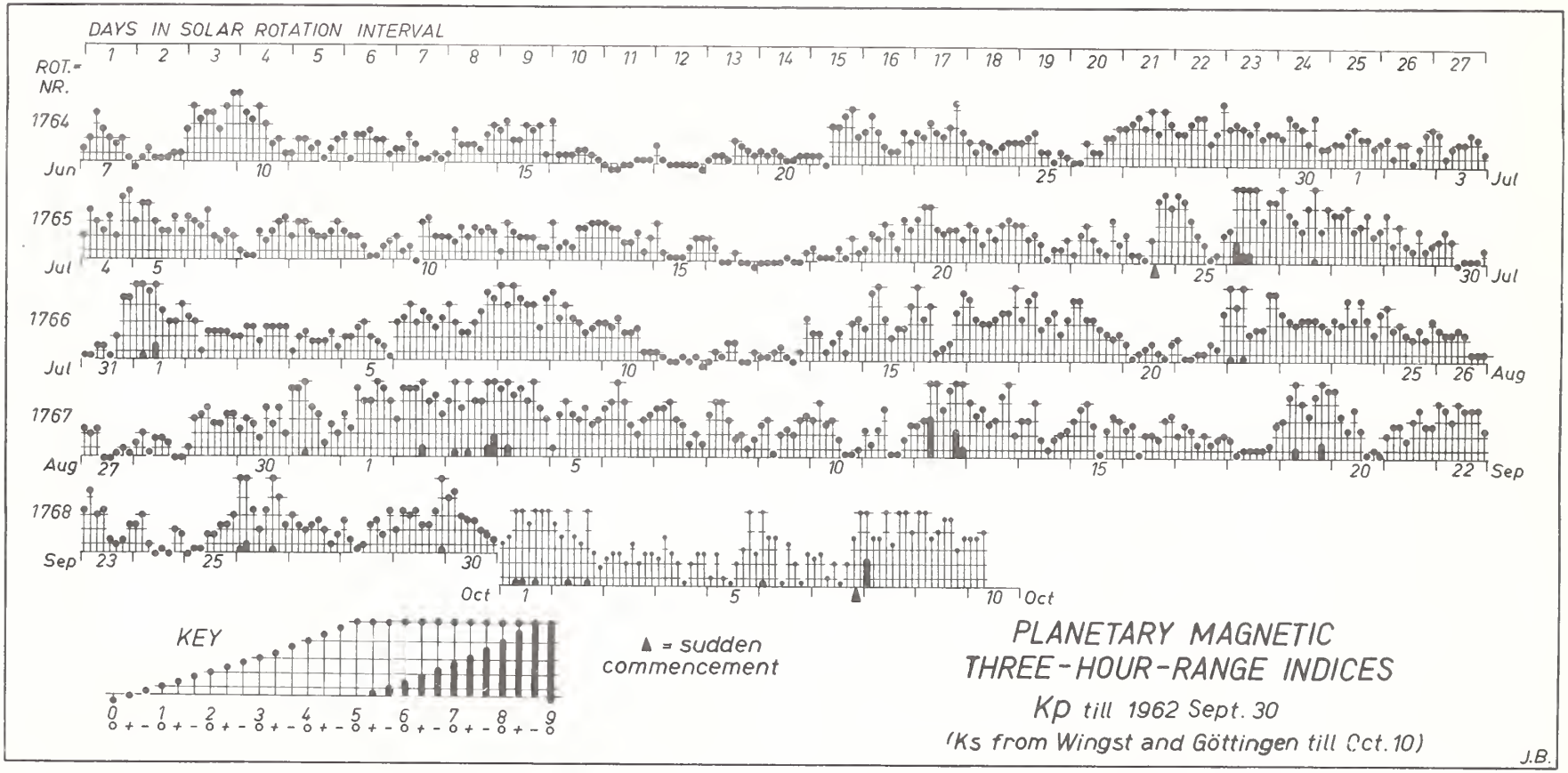


GEOMAGNETIC ACTIVITY INDICES

SEPTEMBER 1962

Sept. 1962	C	Values Kp Three hour Gr. interval 1 2 3 4	5 6 7 8	Sum	Ap	Final Selected Days
1	1.3	3+ 2+ 5- 4o	4o 5o 5- 4o	32o	29	Five
2	1.3	3o 5- 5- 5-	6- 4o 4+ 3+	34+	34	Quiet
3	1.5	4o 5+ 4- 5+	4o 4o 6- 6+	38+	47	
4	1.3	5- 6- 4+ 5-	4o 5o 4- 3o	35o	36	17
5	1.0	1o 3+ 4o 3+	3o 4- 3- 3o	24o	16	18
						24
6	1.0	4- 4o 5o 4o	3- 2o 3o 3+	28-	22	25
7	0.8	4- 4- 4o 3o	3- 1+ 2o 1+	22-	14	28
8	0.8	3+ 4o 4o 3o	2- 2o 1o 2-	21-	14	
9	0.7	3- 3o 1- 2o	2+ 2o 3o 3+	19o	11	
10	0.5	3o 4o 3- 3o	2- 1- 1- 1o	17-	11	
11	0.5	2+ 1+ 2+ 4-	1- 1- 2- 3-	15+	9	Five
12	1.6	3- 3o 7+ 5o	4- 5- 7- 6-	39-	58	Disturbed
13	1.2	4o 3+ 4- 3-	3o 4+ 5o 2o	28o	23	
14	0.6	3o 3o 4o 2-	1o 2- 2o 2+	19-	11	2
15	0.9	3o 4- 4o 3-	1- 2+ 3+ 3o	23-	15	3
						4
16	0.7	2+ 3- 1- 2o	2o 2- 3o 3+	18-	10	12
17	0.3	2o 3- 2+ 1+	2o 1+ 2- 2o	15+	7	19
18	0.2	2- 1- 1o 1o	1o 1o 1+ 3-	10+	5	
19	1.5	3o 4+ 6- 4o	3+ 4+ 6o 5-	35+	39	
20	0.7	5- 3+ 2+ 4-	2+ 1- 1o 1-	19-	13	
21	0.7	2o 3- 3- 2-	3o 4- 3- 3-	21o	12	Ten
22	1.0	4o 4- 3o 4o	4- 4- 4- 2+	28o	21	Quiet
23	0.7	3+ 4+ 3o 3+	1+ 1o 1+ 2+	20o	13	
24	0.1	2+ 3o 1o 0+	1- 0+ 2o 2-	11+	6	10
25	0.4	0+ 1- 1- 2-	2- 2+ 2+ 3o	13-	7	11
						14
26	1.4	5+ 6- 3+ 2o	3+ 5+ 4o 2+	31+	32	16
27	0.4	3o 2+ 2o 2+	3- 2o 1o 2-	17o	9	17
28	0.6	3- 1+ 1- 1o	2+ 3- 2- 3+	16-	9	18
29	1.1	2o 3+ 3o 3+	2+ 2+ 3+ 5+	25o	19	24
30	0.8	4o 4+ 3o 3-	3- 2o 2- 1+	22-	14	25
						27
						28
Mean:	0.85			Mean:	19	

COMMERCE - STANDARDS - BOULDER



COMMERCE - STANDARDS - BOULDER

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

SEPTEMBER 1962

NORTH ATLANTIC

SEPT 1962	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF				WHOLE DAY INDEX	ADVANCE FORECASTS (I_J REPORTS) FOR WHOLE DAY, ISSUED IN ADVANCE BY				GEOMAGNETIC K FR	
	00 TO 06	06 TO 12	12 TO 18	18 TO 24	00	06	12	18		1-7 DAYS FINAL J_S	1-7 DAYS SDW J	1-3 DAYS	1-7 DAYS	HALF DAY (1)	(2)
01	3+	3-	6o	5+	4	3	6	6	(4o)	6	6			3	3
02	4o	3o	5+	5-	4	3	5	5	(4o)	6	6			(5)	(4)
03	3+	2+	4+	5o	3	2	5	4	(4-)	5	5			(5)	(4)
04	3o	2+	4o	5-	4	2	5	5	(3+)	5	5			(5)	5
05	3-	2+	5+	6-	3	3	5	6	(4-)	5	5			3	3
06	3+	2o	5-	5o	4	3	6	5	(3+)	4	4			(4)	2
07	3+	3+	5+	6-	3	2	6	6	(4o)	5	5			(4)	2
08	4o	3+	6-	6-	4	3	5	6	(4+)	4	4	5		(4)	2
09	4+	4o	6+	6-	4	3	6	6	5-	3	3	6		2	3
10	4+	4-	6-	6o	4	3	5	6	5-	4	4	6		(4)	2
11	5+	4o	6-	6+	5	4	6	6	5o	4	4	5		3	2
12	6-	3o	6-	5+	5	4	6	5	5-	5	5	5		(4)	(4)
13	4-	3-	6-	6-	4	3	5	5	(4o)	4	4			3	3
14	4o	3o	6o	6+	4	3	6	6	(4+)	4	4			3	2
15	5+	4o	6-	6o	5	4	6	6	5o	5	5			3	2
16	5+	4+	6o	6o	5	4	6	6	5+	5	5			2	2
17	6-	5-	7-	6+	5	5	6	6	6o	4	4			2	2
18	6-	5-	7-	6+	5	5	6	6	6o	4	4			1	2
19	6-	4o	6o	5o	5	5	6	6	5o	4	4			3	(4)
20	4o	3+	6-	6+	4	3	6	5	(4+)	4	4			3	2
21	5+	3+	6o	6o	5	5	6	6	5o	4	4			2	3
22	5o	3+	6o	6-	5	3	6	6	5-	5	5			3	3
23	5o	3+	6+	6-	4	4	6	6	5-	6	6			3	2
24	5+	4+	6o	6+	5	4	7	6	5+	6	6			2	1
25	5+	4-	6o	6o	5	4	6	6	5o	6	6			1	2
26	4o	4-	6+	6-	5	3	6	6	(4+)	6	6			(4)	3
27	4+	4-	6o	6-	4	4	5	6	5-	4	4			3	2
28	5+	5-	6+	6-	4	4	6	6	6-	4	4			2	2
29	5+	4+	6-	5-	5	5	6	5	5-	4	4			3	3
30	3+	3o	6-	5+	3	3	5	5	4o	3	3			3	2
Score: Quiet Periods				P	8	2	18	25		4	5				
				S	6	2	10	5		9	9				
				U	0	0	0	0		1	0				
				F	0	0	0	0		3	3				
Disturbed Periods				P	12	16	0	0		4	3				
				S	4	9	2	0		5	6				
				U	0	1	0	0		1	1				
				F	0	0	0	0		3	3				

( ) Represent disturbed values
All times are Universal Time (U.T.)

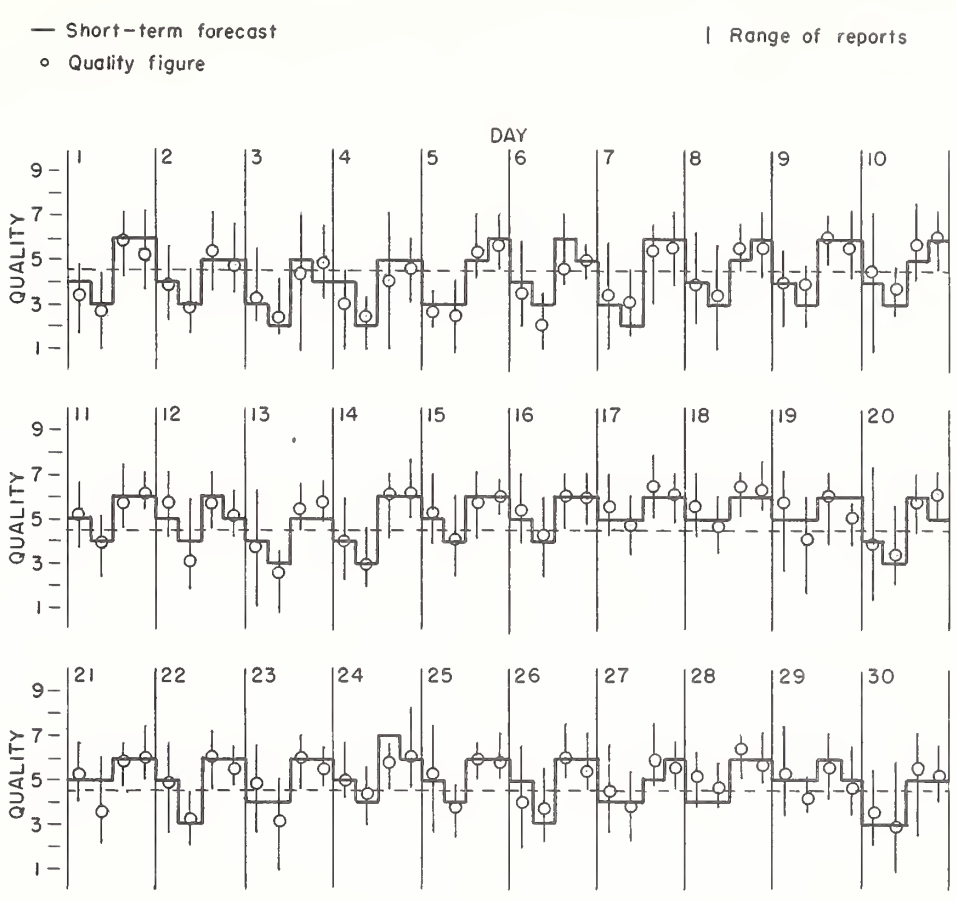
NORTH PACIFIC

NORTH PACIFIC 12-HOURLY QUALITY FIGURES		SHORT-TERM FORECASTS ISSUED AT		WHOLE DAY INDEX	ADVANCE FORECASTS (I_{Jp} REPORTS) FOR WHOLE DAY, ISSUED IN ADVANCE BY				GEOMAGNETIC K_{Si}	
0700 TO 1900	1900 TO 0700	0600	1800		1-7 DAYS FINAL J_{pS}	1-7 DAYS SDW J_p	1-3 DAYS	1-7 DAYS	HALF DAY (1)	(2)
4	5	5	4	(4)	6	6			(4)	3
4	5	4	4	(4)	5	5			(4)	(4)
4	4	3	4	(4)	5	5			(5)	(4)
2	4	3	4	(3)	5	5			(6)	3
4	5	3	4	(4)	5	5			3	2
3	4	4	4	(4)	4	4			(5)	2
4	5	4	4	(4)	4	4			3	2
5	5	5	5	5	5	5			(4)	1
5	5	5	5	5	6	6			1	2
5	6	4	5	5	6	6			(4)	1
5	6	5	6	6	5	5			2	1
3	4	5	4	(4)	5	5			(5)	(4)
4	4	4	3	(4)	4	4			(4)	3
4	4	4	4	(4)	4	4			3	2
5	6	4	5	5	4	4			(4)	2
5	5	6	6	5	5	5			1	2
4	5	5	5	5	5	5			2	2
5	6	5	5	5	4	4			1	1
4	4	3	4	(4)	4	4			(5)	(4)
5	6	4	5	5	4	4			3	2
5	7	5	5	5	4	4			2	2
4	6	5	5	5	5	5			(4)	3
5	7	4	6	6	5	5			(4)	1
5	5	5	6	6	6	6			1	1
5	6	5	5	6	6	6			1	2
5	7	4	4	6	6	6			(5)	3
5	6	5	6	6	4	4			2	2
5	6	4	5	5	4	4			2	2
4	5	4	4	5	3	3			3	3
4	6	4	5	5	3	3			(4)	2
		7	5		7					
		7	16		9					
		0	1		2					
		0	1		1					
		6	6		5					
		9	1		4					
		1	0		1					
		0	0		1					

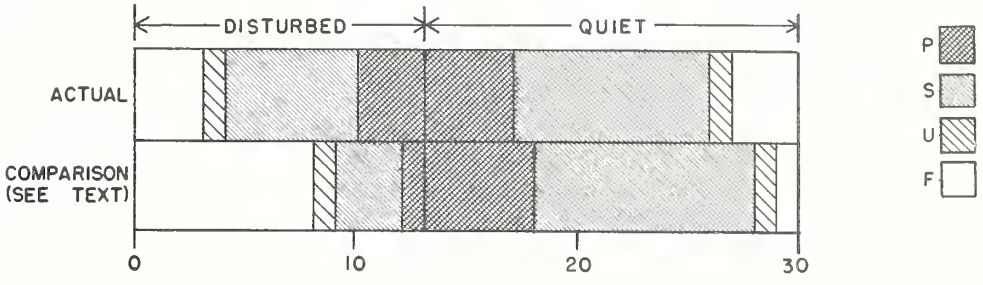
CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH ATLANTIC

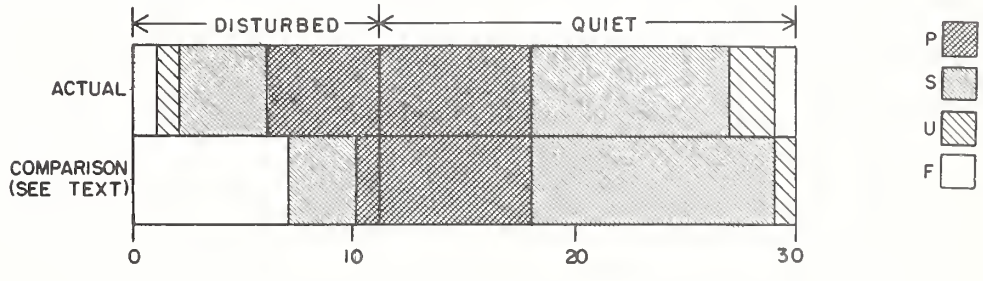
SEPTEMBER 1962



NORTH ATLANTIC



NORTH PACIFIC



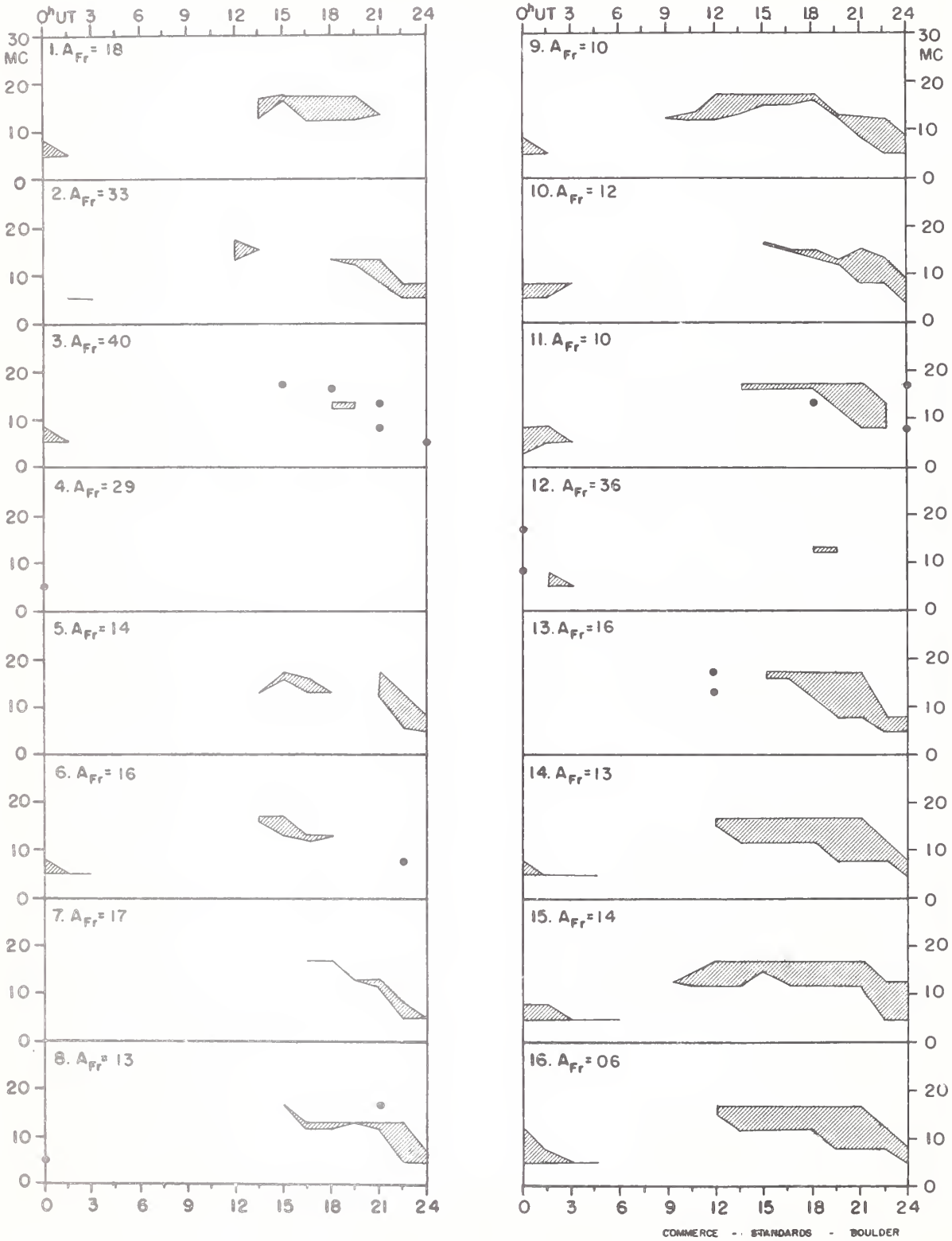
COMMERCE - STANDARDS - BOULDER

Erratum:

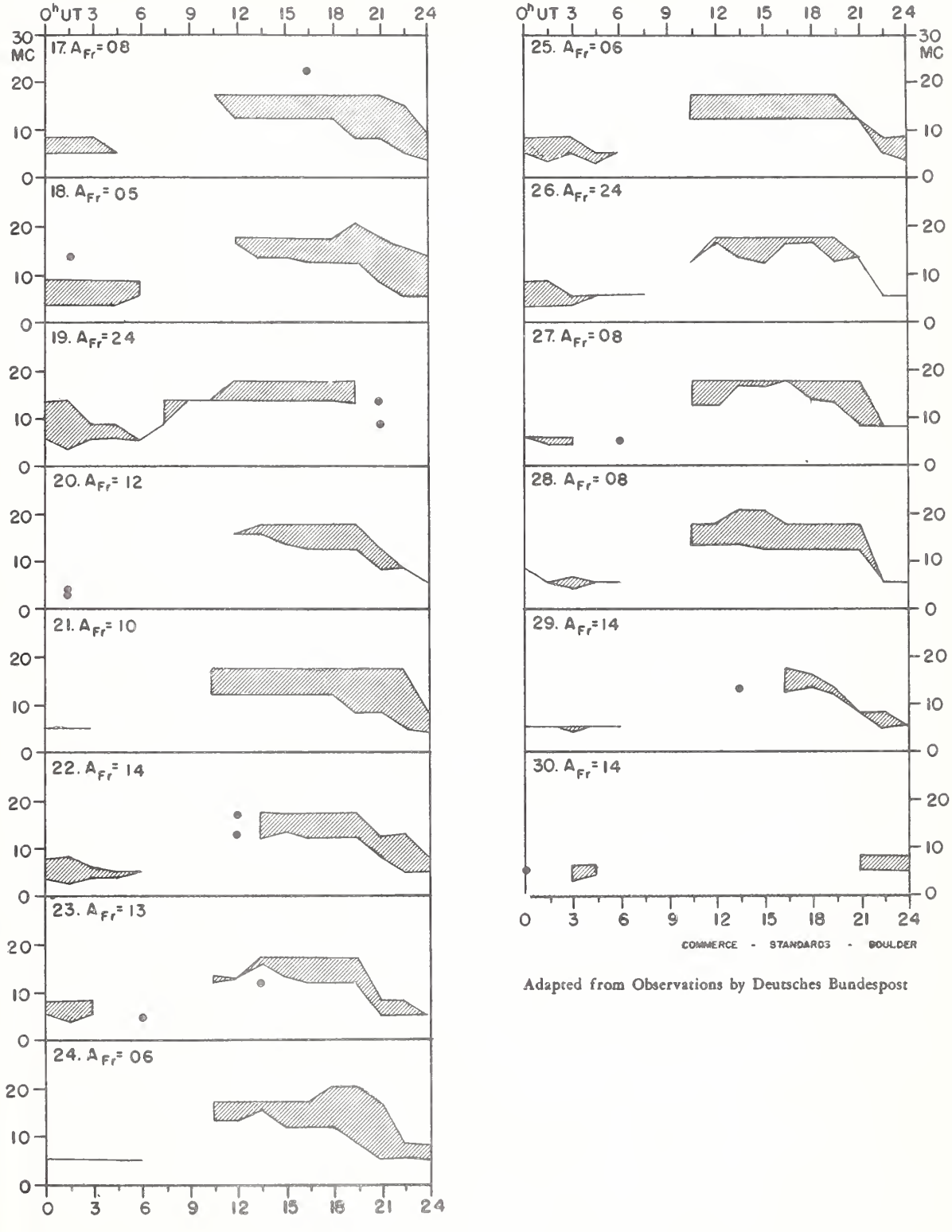
On page VIIB CRPL 218 B, published October 1962, the data are for August 1962, not September 1962, as indicated in the heading.

USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

SEPTEMBER 1962



SEPTEMBER 1962



Adapted from Observations by Deutsches Bundespost

ALERT PERIODS AND SPECIAL WORLD INTERVALS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

OCTOBER 1962

Issued October 1962 Day/Time U.T.	Advance Geophysical Alert	No.	World-Wide Geophysical Alert	Special World Intervals
08/0307	Ft. Belvoir, Magnetic Storm 07/2025Z			
08/1600		181	Magnetic Storm 07/2025Z	Start
09/1600		182		Finish
14/1600		183	Magnetic Storm 13/0800Z	
15/1735	McMath, Solar Flare, One Plus 15/1525Z			
19/1215	Ft. Belvoir, Magnetic Storm 19/07XXZ			
19/1600		184	Magnetic Storm 19/07XX	
23/1837	Sac Peak, Solar Flare, One Plus 23/1705Z			
26/1600		185	Magnetic Storm 24/12XX	

COMMERCE - STANDARDS - BOULDER